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Clinical Medicine and Surgery

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Leading Articles

The Nature of the Common Cold and Influenza
By J. E. R. McDonagh, F.R.C.S., London, Eng.

The Management of Inoperable Malignant Tumors
By Harry D. Grossman, M.D., Chicago

The Specific Treatment of Goiter
By Emilian O. Houda, M.D., Tacoma, Wash.

An Experiment in Sex Education
By G. P. Lawrence, M.E., M.D., Westerville, O.

Banana Diet in Gastric Ulcer
By George A. Bendlage, M.D., Long Beach, Calif.

X-Ray Therapy in Acne Vulgaris and Pustular Skin Affections
By C. S. Bucher, M.D., Champaign, Ill.

Detail Work in a Doctor's Office
By Kate Keenly, New York City

Appendicitis
By Frank B. Young, M.D., Long Beach, Calif.

Editorials

Franciscus Sylvius
The Esthetic Faculty
Specialism and the Phenotype
Quacking the Vitamins
Prejudices
Accuracy in Physical Therapy
Doctors of *Medicine*

COMPLETE TABLE OF CONTENTS ON ADVERTISING PAGE 4

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FRANCISCUS SYLVIUS

CLINICAL · MEDICINE
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VOL. 39 SEPTEMBER, 1932 NO. 9

Franciscus Sylvius

THE seventeenth century, following the official close of the Renaissance, is sometimes called the era of individual scientific endeavor. It was, indeed, a period of intense individualism in all lines and gave us Shakespeare and Milton, Velasquez and Rembrandt, Bacon and Descartes, as well as a number of luminaries in the field of Medicine, including François de la Boë, more commonly called Franciscus Sylvius.

This German or Dutch physician (there seems to be no certain information as to his nativity, though his teaching and practice were carried on in Holland), who was born in 1614 and lived for fifty-eight years, must not be confused with the French anatomist, Jacques Dubois, who lived more than a century earlier, was the teacher of Vesalius, and was also called Sylvius. This latter was such a bigoted galenist that, when his famous pupil detected errors in Galen's anatomic descriptions, he called Vesalius crazy and declared that the human body had changed—and not for the better.

Franciscus Sylvius was professor of medicine at the University of Leyden, and made that institution famous, as did his successor, the great Boerhaave, a hundred years later. He was a teacher and expounder, rather than a research student, and in that field had no superior in his day. Such of his pupils as Thomas Willis, Stensen and Swammerdam added luster to his name. He did for Harvey's revolutionary ideas the same service which Paré did for those of Vesalius—made them respectable and popular.

The name of Sylvius is sometimes mentioned as that of the founder of the Iatrochemical School of medical practice—"vital spirits," "humors" and bodily gases as the foundation of health and disease—but that is a mistake. The Belgian mystic, van Helmont, was the father of Iatrochemistry, and Sylvius merely trimmed off some of its more fantastic appendages and popularized it.

He had, however, a keen and fertile mind of his own and recognized digestion as a chemical process, in which the pancreas and the salivary glands played important parts; described the condition we call acidosis; had a glimpse of the functions of the ductless glands; and probably gave the

earliest account of the Sylvian fissure—though it may have been the earlier Sylvius who gave his name to this landmark in the brain, as he did to the Sylvian aqueduct and the Sylvian artery.

One of the accomplishments for which clinicians should remember Sylvius most warmly was his pioneering in the use of bedside instruction, in the ward of his little infirmary at Leyden, as a valuable and necessary part of medical teaching.

We now know (or think we know) that some of his ideas were ridiculous, but it is difficult to estimate just how much of an asset some of these teachings were to the development of medical science, and it is certain that Sylvius played an important part, in his place and time, in that development.

No medical man can afford to neglect the art of questioning and the art of listening.—Sir E. Farquhar Buzzard, M.D.

The Esthetic Faculty

THE illative faculty or reason seeks for truth and truth only. It has no other function or preoccupation save to discover what is true about everything.

The moral faculty pursues goodness, with equal singleness of purpose. However we may feel about the matter, we do not recognize the good by means of our reasoning processes.

The esthetic faculty alone searches the universe for beauty—the third of the immortal triad of worthy objects of pursuit by man—and finds it just in proportion as it is *trained* to do so.

We do not expect a person to reason cogently, who has never had any training in the use of his mind; and we consider that the man who lacks this power is a decidedly inferior individual.

We do not expect keen ethical judgments from the man who has been brought up among thugs, second-story men and prostitutes; but, for some reason or other, we do not look down upon the moral moron quite as we do upon those who are intellectually deficient, though we more or less dimly recognize the moral faculty as being necessary to satisfactory living.

As for the esthetic faculty, it is still in the oval or larval stage, in most Americans today, but there are signs that quickening is taking place within the egg from which our sense of beauty will, one day, hatch.

Truly satisfying human living rests upon the tripod of truth, goodness and beauty, and whoever lacks one or another of these is crippled in his appreciation of the world around him and in the expression of his unique individuality.

In order to pursue these subjects, we must cultivate reason, ethical perception and taste by *daily exercise*. Only when all of these are operating in some degree can one truly be said to be living as a *man;* and only when they operate symmetrically and harmoniously can one live a balanced life and extract from it all the enjoyment and satisfaction which it is capable of giving him.

One scarcely needs, in this land and time, to urge upon people the necessity for cultivating the intellect. In fact, there are evidences that that line of endeavor can be and is being overdone at times.

Superficially and conversationally, the ethical faculty is just as widely extolled and recognized as necessary; but practically, one who watches the behavior of his fellows sometimes has doubts.

Taste is still looked upon, by the vast majority, as a useless and frivolous appendage to human activity, fit for cultivation only by the exceptional genius or the lazy dilettante and having no worthy part in the activities of the practical people who claim to be doing the world's work.

Beauty is just as necessary to full and rich living as is truth or goodness—in fact, from some valid standpoints, more so. Taste is just as important a part of that genuine education which fits one for life as is reason or ethical perception, and the

curriculum vitae which omits it is a defective program and fails to bring the man who pursues it to those hilltops of vision and power from which the art and science of human existence are seen as constituting the most glorious adventure which our finite consciousness is now able to perceive.

The true leaders of the New Age, which seems now to be in the throes of parturition, will be men who are developed on all sides—wise men, good men, and men of esthetic perception.

The culture of the mind must be subservient to the culture of the heart.—GANDHI.

SPECIALISM AND THE PHENOTYPE

THE specialists in various fields of Medicine have made immense contributions to the progress of the science of healing, and a good many to the art. By and large, their work has been, to a great extent, in the line of developing exact technical procedures for more or less routine use, in cases of certain pathologic processes, rather than in studying the peculiarities of the patients in whom these processes occur.

It is essential that all physicians should be as familiar as possible with all of the curative resources now at our command, but as long as human beings continue to be equipped with highly individualized minds and emotional natures, as well as physical bodies which are, in some measure, unique specimens, there will be a danger that the specialist, in looking with concentrated attention at the organ or physiologic system which occupies the center of his interest, will fail to see the *man*, of whom these organs are a part and, in so doing, will miss opportunities for rendering him the highest possible service.

When Draper laid stress upon the phenotype (the man as he stands before us), as the basis of medical study and procedure, he gave the healing professions real help. Every man is born with a peculiar physical makeup, which is his alone. A great deal (but not everything) can be learned about this by studying his family history. To this may be added the results of investigations of his personal history—reactions to the physical, emotional and mental circumstances of his environment. Such a history should not be a mere catalog of the diseases from which the man and his parents have suffered, but should aim to find out what kind of a person he is. Specialists rarely have the time or inclination to consider a patient in this way.

Disease arises as a result of certain potentialities or limitations *within the patient*, as much as or more than from conditions in the world about him; and the physician, who is more interested in bacteria than he is in individual resistance, will not achieve the success as a *clinician*, which might be his if he widened his outlook.

That patient is fortunate who, when ill, falls into the hands of a physician who has studied men more or less along the line of Draper's "four panels"—morphology, physiology, psychology and immunity—with a special hypothetical panel, made up from a study of the others, which we may call the special disease potentialities of the phenotype.

Such an adviser can go far toward correcting the maladjustments within the man and between him and his environment, which we call disease; and when, in this process, he encounters conditions which require highly technical manipulations or information for their restoration or understanding, he, too, is fortunate if he has at hand specialists who know and can do these things. But the patient who feels competent to diagnose his own case and choose his own specialist or specialists, generally receives an inferior and unsatisfactory type of service, not because the specialists are incompetent in their lines, but because the patient's judgment was faulty.

The country badly needs more men who

are able and willing to study phenotypes, and less of those self-appointed "specialists" who are complicating the practice of medicine and increasing the costs of medical care—not, perhaps, because of any malfeasance of their own, but by offering to the ignorant and bewildered understanding of the public a tempting array of apparently valuable services, which the layman yearns for but has not the sense to know whether he needs or not.

The good a physician can do a patient depends largely on his acquaintance with his constitutional tendencies and condition.—EDWARD BELLANY.

QUACKING THE VITAMINS

AS soon as medical science makes some notable discovery which has wide public interest and appeal, someone is sure to exploit it by playing upon the sketchy and generally distorted knowledge of the matter which the public has absorbed from the more or less garbled accounts that appear in the newspapers.

The vitamins have come in for a great deal of attention, both lay and professional, within the past year or two; and because one of them—vitamin E—has been shown to be one of the necessary elements in the fertility of all animals, including man, it has made a particularly strong appeal to that strain of pruriency in the mass of the population which seizes with avidity upon any information or misinformation even remotely connected with the sex functions.

So now comes Robert Collier, who for some time has been purveying to the desires of those who hope to gain health, wealth and good fortune by more or less occult means, with a modern version of the elixir of youth, which is claimed to "Bring back the springtime of youth . . . Keep you brisk, active, youthful, at an age when your mates are gray and stiff." This marvelous product, advertised directly to prospective customers, in literature which is strangely reminiscent of the good old nostrum "come on" stuff, is none other than vitamin E.

Assuming that Mr. Collier is entirely sincere in the claims he makes, there are serious gaps in his knowledge of the subject, which lead him into such direct misstatements of fact as will sound ridiculous (to say the least) to any serious student of the vitamins.

It seems hardly likely that any physician will be misled by the circular and form letter which are being sent out, and this is written to assist our readers in informing their patients regarding the merits (or demerits) of this and similar vitamin exploitation.

For example, here are some of the statements made in the advertising circular, with comments upon them.

"The first four vitamins (A, B, C, and D) are to be found in most vegetables, and some of them in milk and eggs."

Vitamins A, B and C are present, to some extent, in a number of vegetables, but vitamin D is not, though it is present in milk (which contains them all) and egg yolk. The important point is that the authorities on nutrition are agreed that the average diet is frequently deficient in these very vitamins, especially vitamin D.

"The most important of them—the vitamin that governs the functioning of the reproductive organs—*is the rarest of all!* That one is vitamin E.

"Of all the vitamins known to science, the one used least in the food of the average man is vitamin E. Yet, if he does not want to be pale and anemic, if he does not want to be sterile, if he does not want to lose all functioning in his reproductive organs, there is nothing more vital to him than this same rare vitamin E."

In the first place, it is not true that vitamin E is the rarest of the vitamins, though it is the one about which, just now, we know least. It is widely distributed in ordinary foods, such as most seeds (grains) and many vegetables, oranges, bananas, egg yolk, milk and butter, and, being thermo-stable, is not affected by the heat of ordinary cooking, as several of the others are. While often referred to (unfortunately) as the "anti-

sterility vitamin," it is no more important, in this connection, than is vitamin A.

Sherman and Smith, in their authoritative book, "The Vitamins," state, on page 344:

"While vitamin E appears to be one of the essential food constituents, it is probably not of as great importance, from a practical point of view, as the other vitamins, on account of its wide distribution in foods and the extreme smallness of the amounts needed for its special functions."

The statement, that "vitamin E governs the functioning of the reproductive organs," is simply nonsense, to anyone who is familiar with even the rudiments of this subject. Sherman and Smith state ("The Vitamins," page 342):

"The administration of extracts of foods, known to be from twice to twenty times as rich in vitamin E as is required for normal reproductiton, would not result in any increase in the number or size of the young, nor would it in any other way improve the performance of the reproductive system beyond usual limits."

Again Collier:

"Without vitamin E the body cannot assimilate iron into the blood."

Careful investigations have shown that there is no reduction in the hemoglobin nor in the red or white blood cells in the blood of male or female animals on a vitamin E-deficient diet. In fact, no definite relationship has been shown between vitamin E and the metabolism of iron. This is more gross ignorance or pernicious nonsense.

These quotations are by no means all of the misstatements and exaggerations contained in the circular and letter, but they are enough to show that there is a close family resemblance, at least, between them and some of the notorious literature of medicines and foods which has separated many uninformed and simple-minded people from their dollars in times past

It seems a pity—but inevitable—that the vitamins, along with other good and and valuable things, must be quacked by those who find that procedure profitable.

One of the important functions of physicians is to be so familiar with the facts that they can do a good job of *dequacking*, before the campaign of befoggery has separated their patients from unduly large quantities of their all-too-scarce cash.

We cannot solve the fundamental problems of biology by addition and subtraction. — JOHN BURROUGHS.

PREJUDICES

FEW things interfere so seriously with sound and logical thinking as do the prejudices of the actual or ostensible thinkers. When an idea is presented to us, it is frequently distorted out of all resemblance to its original form by the time it has run the gantlet of our preconceived opinions and entered the mind.

Etymologically, the word prejudice comes from the Latin *pre* (before and *judice* (to form a judgment). That is, the prejudiced man makes up his mind about things before hearing the evidence.

Our prejudices are, very largely, forced upon us (if we permit that to take place) by our parents, our teachers and the members of the social group in which we move. It is pitiable to think of the number of people who are prejudiced against Negroes, Roman Catholics, Jews, Democrats, birth control, hospitals, companionate marriage and thousands of other things.

The surprising thing about it is that otherwise-intelligent men and women often continue to entertain prejudices, in the face of reason, common sense and established facts, when their conduct in other lines would lead us to expect them to show a normal and rational reaction.

The only possible explanation of this curious phenomenon is that these people keep their prejudices in thought-tight compartments of their minds, where they cannot be reached by new ideas nor by the most logical of arguments, for otherwise

these fossilized and anachronistic opinions would be sure to undergo some modification —which they obviously do not.

Two practical points are derivable from these suggestions: (1) If we want to be sound, sane, all-around human beings, we must break down the partitions in our minds, so that the sunlight of reason and new discoveries can flood the whole place; and (2) It is a waste of time, breath, and frequently of temper and equanimity, to argue with a prejudiced man about his prejudices. Nothing will go through the partitions and no one but himself can remove them.

NIKKO

(Hokku Sequence)

From the ardors of
The South I am come at last
To thy sweet coolness.

Open thy thrilling
Arms to receive me with the
Kiss of frost-touched hills.

Upon thy bold slopes,
Glowing with flames of autumn,
Red maple leaves dance.

Thy voice is the voice
Of small waterfalls singing
Dragon songs at night.

I will lie with thee,
Mistress of wind-swept mountains,
Renewing my strength.

G. B. L.

LEADING · ARTICLES

The Nature of the Common Cold and Influenza

By J E. R. McDonagh, F.R.C.S., London, Eng.

YOU may wonder, when the competition to discover the cause of the common cold and influenza is so keen, why I have used the word "nature" in the title of this paper. My reasons are twofold: First, because the problems solved themselves in the course of my inquiry into the nature of disease. Second, because searching for a cause always terminates in failure, partly due to the fact that no end is attainable and partly to the fact that any success obtained never contains the whole truth.

Medicine is suffering today from the continuous search for ends which, even if reached, could never be connected. Moreover, a search for an end necessarily causes the investigator to neglect the paths which he should have trodden first and which, had he done so, would have opened up vistas beyond his wildest dreams. Each vista vouchsafes more information than an investigator could hope to gain in a lifetime spent in attempting to reach a point.

Medicine is like a jig-saw puzzle where no piece can be fitted without reference to the whole and, where only a few pieces can be accurately placed by a generation. An end is necessarily imperfect and it needs supports which are still more imperfect. This is the reason why facts, proofs and dogmas, the outcome of searching for ends, held to be right today, come to be shown to be wrong tomorrow.

No better illustration of this could be given than the discovery of the *Spirocheta pallida* in 1905. Shaudinn and Hoffmann having the end in view that the cause of syphilis was most probably a *Spirocheta*, aimed at it and found one in the first specimen examined. The specific name "*pallida*" was given to the *Spirocheta* which was accepted the world over as the cause of the infection. This was followed by the discovery of the Wassermann reaction in 1907 and of arsenobenzene in 1909. The former was regarded as a test for the *Spirocheta* and the latter as a drug which had a specific lethal effect upon it. The *Spirocheta pallida* is not the cause of syphilis and its discovery has thrown no light upon the nature of the infection. The Wassermann reaction is a crude, non-specific test, which reveals no more than that some of the protein particles in the plasma have reached a certain degree of hydration.

Arsenobenzene acts by increasing the resistance of the patient, which may or may not enable him to turn the tables upon the parasites. The infection being such an important one as syphilis, the discovery of the *Spirocheta pallida* led to a fashion in this genus. *Spirocheta* were sought in all infections, the cause of which was unknown, with incomplete success.

The fashion has since changed to the ultramicroscopic viruses and many of the original investigators have gone with it, expecting to find ends in the new field which they failed to do in the old. So great has been the success with which the new efforts have been crowned that it can be truly said that, in every infection where an ultramicroscopic virus has been sought, one has been found. But despite this success, the discoveries have thrown no light upon the nature of the infections. Even if the unprecedented success was not sufficient in it-

*A paper read before the Newport Medical Society, England, January 7, 1932.

self to cause astonishment, it would have been thought that, at least, the emptiness of the results would have prompted one investigator to have halted to inquire into the reason why. But no, it does not seem to have occurred to a single worker that the actual process of filtration by which the presence of the viruses is detected is the generator of at least some of them. Although bacteria may form an ultramicroscopic phase spontaneously, they may be made to do so more readily by filtration, a process which makes all colloid particles yield smaller and still smaller ones. So firm has the belief in these filtrable viruses become that it has recently been stated that the cause of syphilis is a virus, the *Spirocheta pallida* being no longer the virulent phase, but merely the visible and non-virulent stage in the life-cycle.

If this has happened to syphilis, it is not surprising that the common cold and influenza, the causes of which have defied solution for so long, were dragged early into the invisible virus maelstrom. Had the nature of these infections and not the cause been investigated first, the observation would have been speedily made that the microorganisms playing the primary role have their habitat in the large intestine, and not in the nose and the other organs involved. Even supposing that the nose held the causative microorganism of the common cold, in what part of the body is the parasite of influenza to be sought? Influenza is not a specific infection, the causative microorganisms are not always the same and the clinical pictures are legion.

When I found that there is only one disease and that chronic intestinal intoxication plays the chief part in maintaining it from birth to the grave, I made daily examinations of the excreta of as many men and animals as I could lay my hands on. As a result of doing this for the past five years, I have drawn certain inferences, which harmonize so well with clinical experience as to make me bold enough to state that they throw more light upon the common cold, influenza and allied infections than a search for the causes ever could have done.

The Unitary View of Disease and Chronic Intestinal Intoxication

My investigations have led me to hold that there is only one disease and that this is brought about by the altered chemico-physical changes to which the protein particles in the plasma, forming the host's main resistance, are subjected by the invader. Although the invaders may be grouped into physical agents, chemical poisons and microorganisms, they all act in the same way. A further inquiry shows disease to be hereditary and the factor responsible for this so alters the activity of the centers of the vagus in utero as to damage the intestinal tract before the child comes into the world. The damage is sustained and augmented after birth by faulty foodstuffs and insufficient elimination of their waste products.

The damage done to the intestinal tract causes the *Bacillus coli communis* to mutate into forms which break down the food in the wrong way. The faulty metabolites so produced enter the blood-stream, where they subject the protein particles to abnormal chemico-physical changes. In this way a vicious circle is formed, because the altered protein particles play a part in the inheritance of disease and in augmenting a chronic intestinal intoxication. All the clinical manifestations of disease are secondary to the abnormal changes the protein particles undergo. Therefore, whether the signs and symptoms produced are acute, subacute or chronic, depends upon the pathogenic activity exhibited by the mutative forms of the *Bacillus coli communis*.

The Mutative Forms of the Bacillus Coli Communis

The *Bacillus coli communis* is a normal denizen of the large intestine and, when it leaves this to invade the blood-stream, respiratory system or urogenital tract, it does so at the dictate of one of its mutation forms and develops little or no pathogenic activity in its new abode.

The mutation can take place in five directions, each of which can be likened to a ladder, since a microorganism on one rung evolves from the one below. The further removed the mutated bacillus is from the parent form, the greater is the pathogenic activity it is capable of acquiring. Although the pathogenic activity of the different forms varies, it may so happen that the most pathogenic form is evincing no activity at the time it is found. In other words, the mutative forms may be active at one time and inactive at another. As the term "infection" is applied to some of the acute manifestations of disease occasioned by the activity of these microorganisms and as cli-

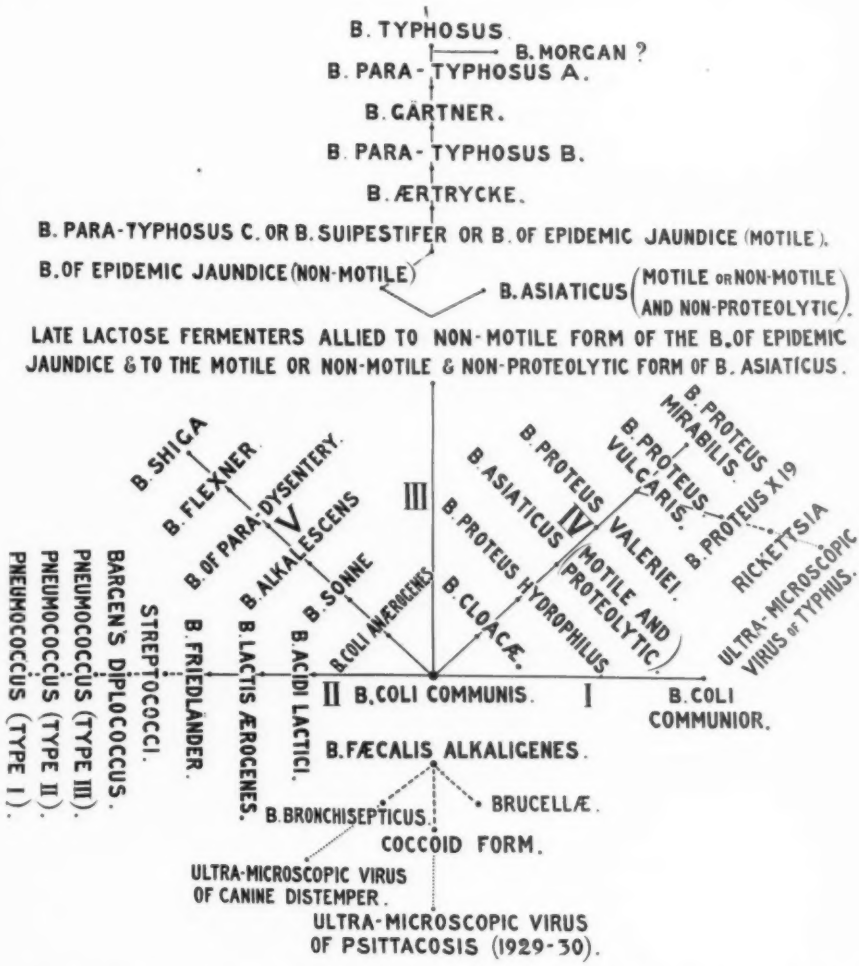

Fig. 1.—The mutation forms of the *Bacillus coli communis* arranged in five ladders. As the origin of the *Bacillus faecalis alkaligenes* is not definite'y determined, it is placed separately.

mate is the main factor influencing the activity the fact that certain infections are seasonal is explained.

The mutative forms, except the most pathogenic, seldom leave the large intestine to invade the blood-stream or other organs, but when they do so they select the respiratory system, thereby explaining why nasal catarrh and pneumonitis are the most common signs of their activity. They prefer to remain in the large intestine, from where they damage the protein particles in the way described above. Some of the protein particles are sent into true solution and others are increased in size. The latter tend to collect in the perivascular lympathic vessels of the respiratory system for choice, where they cause such conditions as nasal catarrh, hay-fever, vasomotor rhinorrhea and bronchorrhea, asthma, pneumonitis, etc., according to the kind of activity being generated. When the precipitated protein particles are particularly irritative they may goad to activity microorganisms leading, ordinarily, a saprophytic existence in the parts involved, but, any damage caused by this activity is no more than secondary.

The reason why the microorganisms occupying the highest rungs of the ladder are the most pathogenic is because they occa-

sion the maximum degree of hydration—the most serious change the protein particles in the plasma can undergo. It is owing to this hydration that the immunity reactions such as agglutination, precipitation and complement-fixation are positive.

But it is wrong to assume that, because the microorganisms occupying the lower rungs are not agglutinated by the victims' serum, they are non-pathogenic. The microorganisms on the uppermost rungs are able to develop into coccoid and these into ultramicroscopic phases. The formation of these phases appears to take place at the end of a cycle and to be brought about by the increased resistance the host has been able to develop during the cycle. The length of the cycle varies with different microorganisms and I am uncertain, at the moment, whether the cycle of any one microorganism is always of the same length. The coccoid form appears to be reversible, but not so the ultramicroscopic form. The coccoid form may become, in the course of time, a distinct microorganism, just as its parent evolved from the *Bacillus colis communis*.

The ultramicroscopic form is particularly pathogenic, largely owing to the way in which it is developed, being the concentrated essence, so to speak, of its forbear, and to the distance separating it from the parent form. It is probable that the ultramicroscopic phase is formed during the passage through the choroid plexuses, these membranes behaving as a filter. This would explain why encephalitis and myelitis are the clinical manifestations most frequently caused and are met with most often in the terminal stage of infections, or when they are actually on the wane. It is possible that the demise of the parent form is brought about by the lysogenic or bacteriophagic action of its filtrable phase.

Infections caused by the activity of the mutative forms of the *Bacillus coli communis* are best referred to as "infections from within," because they are largely of the host's own making. This serves to distinguish them from "infections from without," caused by such microorganisms as the gonococcus, *Leucocytozoon syphilidis*, etc. There are certain differences between these types of infections to which attention must be drawn. A thorough clinical examination of a patient with an infection from within will always reveal some accentuation of the chronic intestinal intoxication. In some cases the intestinal condition may be so acute as to make the observer turn over in his mind the possibility of surgical interference. Such a condition is encountered in socalled "gastric influenza."

The immunity resulting from infections from within is as nothing compared with that from infections from without, and this explains why fresh attacks occur in the former and recurrences in the latter. Microorganisms causing infections from within are not spread from person to person as are those causing infections from without. When many individuals fall victims to the former they do so at the same time because the action of climate is universal. Any spread which does occur is through the dissemination of activity. Owing to the ultramicroscopic phase completely losing its connection with the parent form, it may behave like a microorganism causing an infection from without. This is why a patient once subjected to its activity tends to be immune to further attacks. This point alone should have warned observers concluding that the common cold and influenza are caused by ultramicroscopic viruses.

The Common Cold

The common cold is merely an acute manifestation of disease affecting the respiratory tract, caused by the pathogenic activity of the microorganisms occupying the rungs of ladder II, in the main, and of the *Bacillus Friedländer* in particular. The common cold is seasonal and usually a harbinger of influenza, because climate brings ladder II into evidence before the bacilli of epidemic jaundice on ladder III, or the *Bacillus faecalis alkaligenes*, acquire sufficient pathogenic activity to cause influenza. The activity of any of the three microorganisms on ladder II may keep any manifestation of disease active and this is most true of the *Bacillus Friedländer*. But, should the activity be increased, it is most likely to excite lesions in the respiratory tract, vascular system and joints. The increased activity lowers the patient's resistance most of all to streptococci and pneumococci, because these microorganisms most probably evolved from the *Bacillus Friedländer* originally.

It is interesting to note that in some of these secondary infections the streptococci are capsulated. When streptococci and pneumococci (ordinarily saprophytic microorganisms) become active, the former may give rise to tonsillitis, rheumatic fever and

carditis, or scarlet fever and nephritis, and the latter to pneumonia. But, there is no difference between the lesions produced in this way, and the common cold.

Streptococci, since leaving the large intestine to invade other organs, have acquired properties which enable them, on occasions, to cause infections from without, but, generally speaking, they play no more than a secondary part in infections from within. When playing a secondary part, the infections for which they are responsible are not spread by their dissemination, or even by their activity. This is true also of the secondary microorganisms found in the nose in the common cold. The common cold is initiated universally by climate, causing the *Bacillus Friedländer*, in a susceptible subject, to acquire extra pathogenic activity, and it is spread locally by the dissemination of this activity. I can bring forward many points in favor of this inferential reasoning and these are the most important!

Injecting the activity of the *Bacillus Friedländer*, as it is contained in the washings, prevents a common cold and causes its disappearance, *so long as the correct dose is used*. If the wrong dose is used, it will precipitate a cold in a susceptible person, aggravate one already in being and occasion one or other of the manifestations of disease just mentioned.

The intestinal streptococci may have a cycle and develop into smaller, and these into ultramicroscopic phases. Measles is most probably caused in this way. Its biennial appearance marks the length of the cycle and the encephalitis met with at the end of the epidemic is doubtless due to the ultramicroscopic phase. These streptococci may remain active longer than usual. When they do so, the expected epidemic of measles does not arise and the microorganisms play an active part in the epidemics of influenza which occur during the period of this increased activity. It is probable that poliomyelitis is caused by a filtrable phase of a streptococcus, first because it is a children's complaint and second because epidemics occur most frequently from July to September, when streptococci are usually most active.

Influenza

The word "influenza," meaning, literally "influence" and later "the prevailing influence" or "epidemic," can be applied to any acute manifestation of disease occurring in epidemic form, caused by the activity of the mutation forms of the *Bacillus coli communis* and the *Bacillus faecalis alkaligenes*. Although the activity of the *Bacillus Friedländer* may be responsible for influenza, the common cold preceding the infection, the epidemic is caused, in the main, by the activity either of the bacilli of epidemic jaundice or of the *Bacillus faecalis alkaligenes*. These microorganisms appear to take it in turn to reign supreme for a term of years, during which they go through their cycle and produce a biennial epidemic, in the summer and in the winter. How many years it takes to complete a cycle I am at present unable to say. I have no more information at the moment than that the *Bacillus faecalis alkaligenes* was in power in the winter 1926-27, when I began these investigations, and continued so until May, 1930, when the crown passed over to the bacilli of epidemic jaundice.

From the winter 1926-27 to May, 1930, *Bacillus faecalis alkaligenes* was the microorganism predominating in the excreta of man and animals. Although its pathogenic activity was greatest during the summer and winter, it was not necessarily dormant at other times. Indeed it was a potent factor in keeping all sorts of manifestations of disease going. The winter epidemic is generally more severe than the summer one and each succeeding winter epidemic tends to be more severe than the one before. For the latter there are two reasons, one being that the pathogenic activity increases as the cycle advances and the other that the hydration of the host's protein particles becomes more marked.

There is one factor at work which may upset this rule. When intestinal streptococci become sufficiently active to play a part in the prevailing epidemic, they check the growth of *Bacillus coli communis*, or at least its mutative form, from appearing and prevent its mutating. The death rate may be very high but it is due to the streptococci rather than to the reigning non-lactose-fermenter, and to the changes to which their activity subjects the protein particles in the plasma, rather than to the microorganisms themselves. This is the probable explanation of the severity of the epidemics which occurred in the summer, 1918, and the winter, 1918-19.

Every epidemic contains seeds which mature and bring about its ultimate destruction, because, when the protein particles in

the plasma of the host reach their maximum degree of hydration, they undergo the cyclical change of dispersion and this turns the tables on the parasites. The development of the microorganism into coccoid and ultramicroscopic phases is doubtless determined by this cyclical change, in which case it is more than probable that the term of years taken to complete a cycle is not always of the same length. Not all microorganisms produce hydration to the same extent; likewise the maximum degree capable of being produced is reached quicker with some microorganisms than with others. Or, to put it in another way, the cyclical change of dispersion occurs earlier in some infections than in others, thereby causing certain microorganisms to develop into smaller and filtrable phases before other microorganisms will do so. The cycle streptococci undergo is completed in a much shorter time than that of the *Bacillus faecalis alkaligenes*. The activity of the *Bacillus faecalis alkaligenes* in season; that is to say, when it is responsible for an epidemic, causes most damage in the respiratory tract.

During the last cycle, as the hydration became more pronounced, the lungs were the organs selected for attack, but, instead of the lesion being one of ordinary pneumonia, it was of the nature of pulmonary edema. The incidence of pulmonary edema reached its maximum in the winter epidemic, 1929-30, and it was caused by the precipitation of hydrated protein particles in the perivascular lymphatic spaces. This is confirmed by the fact that the base of the right lung was usually the first part to be affected, the reason being that the lymphatic spaces are larger in this area than elsewhere, because this part of the lung is supplied by the largest branch of the larger right pulmonary artery.

When the hydration reached its maximum, as it did in the first half of 1930, two important phenomena occurred: one was that the hydration approached that encountered in syphilis, an infection which causes a greater degree than any other; and the other that, when the cyclical change occurred, the *Bacillus faecalis alkaligenes* developed into coccoid and ultramicroscopic phases. The former caused the blood to give a positive Wassermann reaction and the hydrated protein particles collected in the lymphatic glands and skin, as they do in syphilis, to give rise to general lymphadenitis and lymphocytosis and a maculo-papular rash. This is my explanation of what is called "glandular-fever," a form of influenza which was prevalent during the last stage of the cycle.

The coccoid form of the *Bacillus faecalis alkaligenes* was found not uncommonly in the blood, and the ultramicroscopic phase appeared to be responsible for some of the cases of socalled **"psittacosis,"** which was rampant at the time. *Psittacosis* had nothing to do with parrots, as it affected other birds and animals at the same time. The condition was merely one of influenza, which affects man and animals alike, and it was never conveyed to man by animals nor *vice-versa*. The ultramicroscopic phase acting, as it does, like a microorganism from without, may theoretically produce an infection in this way. But, nevertheless, I am of the opinion that the epidemic of psittacosis occurred as a natural sequence of events, and any spread which did occur was through the dissemination of the activity of the *Bacillus faecalis alkaligenes*, rather than through its ultramicroscopic phase. Infections from within are not spread from animals to man or *vice versa*, and this is true also of the activity of the microorganisms causing them. Moreover, some of the cases of psittacosis were the result of the activity of the *Bacillus Friedländer*.

As soon as the *Bacillus faecalis alkaligenes* vanished, first the non-motile, then the motile form of the bacillus of epidemic jaundice, associated often with the *Bacillus Asiaticus*, took its place. These bacilli caused jaundice in the first summer epidemic of their cycle, and socalled "gastric influenza" in the first winter epidemic. At the height of the winter epidemic of 1930-31, the activity of the motile form of the bacillus of epidemic jaundice became so great as to cause the mutation to advance to the rungs above in ladder III, to those occupied by the *Salmonellae*. This is how the socalled "paratyphoid epidemic" was brought about in Loughton, Essex. These epidemics are not caused or spread by contaminated milk or water, because paratyphoid bacilli may continue to be found, in the vehicle incriminated, months after the epidemic has subsided.

During the non-epidemic periods, when the reigning microorganism is more or less inactive, any factor which lowers the resistance of the individual or aggravates the chronic intestinal intoxication may goad the

bacillus to pathogenic activity. A faulty article of food is an important and common factor; but the cases have as much right to be labeled "influenza" as "**food-poisoning.**" Indeed, this is the explanation of many epidemics of "food-poisoning." Should the bacilli of epidemic jaundice be reigning when one of these epidemics occurs, and should the factor be particularly active or the resistance of the patient be very low, one or more of the *Salmonellae* may be found in the excreta.

Through the kindness of Dr. J. A. H. Brincker, I had the good fortune to investigate the epidemic of paratyphoid in Loughton and an epidemic of food-poisoning in London, in May, 1931. In both I found microorganisms in the stools, ranging from the non-motile form of the bacillus of epidemic jaundice to the *Bacillus Gaertner*. It is interesting to note that the serum of the patients began to agglutinate *Bacillus paratyphosus* B when the motile form of the bacillus of epidemic jaundice appeared in the stools. During the reign of the *Bacillus faecalis alkaligenes*, the bacilli of epidemic jaundice were not absentees from the excreta, as the former has been from June, 1930, to date.

Whether the *Bacillus faecalis alkaligenes* is going to reappear before the bacilli of epidemic jaundice vanish and be in evidence during their reign, only the future can show. Or, it may be that the reign of the bacilli of epidemic jaundice is the first stage in the cycle of the *Bacillus faecalis alkaligenes*, because experiments being undertaken in my laboratories at the time of writing lead me to regard as a possibility this microorganism being linked in some way to one or more of the ladders.

If my reasoning is correct it is possible, during any reign of the bacilli of epidemic jaundice, for an epidemic of typhoid fever to arise. Should such occur, it will show that the tribute paid to preventive medicine in lessening the incidence of this infection is not wholly justified. Be this the case or not, the inferences to be drawn from my work are that it would be better to label each epidemic with the name of the microorganism responsible and to delete the word "influenza" and that there is no necessity, in infections from within, to pay attention to socalled "carriers," to segregate and to hospitalize victims and to slaughter infected animals.

To prevent the common cold and influenza entirely it is necessary to rid humanity of inherited disease and chronic intestinal intoxication, to make the environment and food of animals under domestication as natural as possible and to do away with keeping animals in captivity. Even the slightest prevention of a chronic intestinal intoxication would achieve much, because the *Bacillus coli communis* does not, as a rule, undergo mutation in the first decade of life and it ceases to do so before the last decade. This explains why influenza is not an infection of the young and old. These two decades have been left to the tender mercy of the streptococci, as evidenced by the epidemic occurring this winter (1931-32) where the streptococci have ousted the non-lactose-fermenters.

To partially prevent the common cold and influenza, man and animals can be immunized before each epidemic is due, with the washings of the microorganisms most likely to cause it. Washings of 1,000 and 100 million bacilli should be injected, either two days running or on alternate days; but much more work needs to be done before this method can be correctly valued. The same washings can be used to cut short an attack, but, if this is very acute, the emulsion of the bacilli from which the washings are prepared should contain not less than 5,000 million bacilli to the cc.

Chemotherapy may be employed, instead of or alongside immunotherapy and the drug to be selected depends upon whether the dehydration or the hydration needs to be corrected first. As time is important and may not allow a blood examination to be made before a decision, Sup. 36 may be safely injected in every case. Should this fail, recourse may be had to B.N. 368, Sup. 468, Sum. 468 or arsenobenzene, the choice to be determined by the blood-picture. In cases where the hydration is so severe as to cause a condition akin to shock, reliance should be placed upon blood-transfusions.

Summary

By making daily examinations of the excreta of men and animals, and fitting in the knowledge gained with that already acquired from an inquiry into the nature of disease, I have come to these conclusions:

1.—The common cold and influenza are of the host's own making and are brought about by the mutation forms of the *Bacil-*

lus coli communis, acquiring pathogenic activity mainly through the influence of climate.

2.—That many infections thought to be wholly caused by streptococci and pneumococci are primarily caused by the mutation forms, the coccogenic microorganisms playing no more than a secondary role.

3.—That canine and feline distemper, coughing in horses, etc., are forms of influenza in animals, the infections being neither specific nor always caused by the same microorganism.

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The Management of Inoperable Malignant Tumors

By Harry D. Grossman, M.D., Chicago

THE patient with a malignant tumor, which is beyond the help of surgery or radiotherapy, offers a serious problem to the medical profession and one which should not be avoided. The general attitude of most of us, that there is nothing further to do and that death, the coming of which should not be delayed, is the only solution to the problem, is far too prevalent and should be discarded. Probably nowhere in medicine does the physician air his hopelessness and lack of desire to carry on as in this class of cases. True, he is willing and eager to give as much narcotic medication as he deems necessary to diminish the patient's suffering and to advise the family as to general hygienic care, but beyond this he shows little interest.

A comparison may be made between the hopelessness of these inoperable malignant tumor cases and diabetes in children, fifteen years or more ago. At that time, with the best medical and dietetic management, these juvenile diabetics rarely lived over two years after the discovery of the disease, yet no one thought it was useless to keep them alive as long as possible. There was always the hope that a cure or aid for diabetes would be discovered. Insulin has changed the whole idea of therapy in this disease, so that the prognosis for juvenile diabetics is much better. Plenty of research work is being done on all phases of the cancer problem and, although one should not be too optimistic, it certainly is not too much to hope that someone may come forth with a new type of treatment for these inoperable tumors which may change the whole outlook for these patients.

The treatment of inoperable malignant tumors requires all the skill, care and patience of the medical attendant and here, as much as or more than anywhere else in medicine, the doctor must treat the patient as an entity. To make the patient comfortable should be the goal set by all those who look after him. This applies, not only to his physical welfare, but also to his mental condition.

Inasmuch as inoperability practically always means that death hovers in the not-distant future, it is probably wiser to refrain from mentioning the diagnosis to the patient, as knowing the hopelessness of his physical state is certain to have a depressing influence on his psychic state. Of course, some member of the family should be told the prognosis, so that the family may realize how essential it is to make the patient comfortable for the rest of his life.

The symptoms which are most apt to tax the doctor's abilities, in an attempt to overcome their presence or slow their progress, are the pain, which is usually such a distressing symptom in late cases; the inability to take food or the lack of desire for food; the anemia, which may be mild or severe; and the loss of weight, which may be slow or very rapid. Other symptoms due to the special location of the tumor require individual consideration and thought, and effort must be made to counteract their effects.

Palliative Operations

Because the ultimate outcome in nearly all these cases is death, any methods which may help to relieve distressing symptoms are permissible and should be used. Whenever symptoms of obstruction occur in any of the hollow organs, as the gastrointestinal tract, in any of its division, or in the urinary bladder, operative interference is definitely indicated. Thus, in carcinoma of the esophagus, gastrostomy is indicated;

in malignant tumors of the stomach, gastro-enterostomy should be performed or, if that is not feasible, jejunostomy. When the tumor involves the large bowel, an artificial anus, proximal to the lesion, should be made. In bladder cases, a suprapubic cystostomy is indicated.

In those cases of malignant tumors about the gall-bladder region, with severe itching and jaundice, with or without pain, at least a cholecystostomy should be done or, wherever possible, a cholecystenterostomy. In laryngeal cases, a low tracheotomy should be performed and, in patients with intracranial tumors having pressure symptoms, a decompression operation should be performed, allowing plenty of room for further expansion.

Whenever any palliative operation is being done to relieve pressure or obstructive symptoms, the nerve connections between the involved organ and the central nervous system should be destroyed. Thus, in abdominal operations, periarterial sympathectomy of the artery supplying the pathologic region destroys the pathway of stimuli and frequently does away with the symptom of pain, at least until new areas are invaded.

It is of the utmost importance to keep up the nutrition of the patient and, wherever possible, frequent feedings of a high caloric diet are indicated. However, if food cannot be taken orally, then it must be given by either a gastrostomy or jejunostomy opening. The anorexia, so frequent in advanced malignant tumor cases, can frequently be overcome by small forced feedings of tastily-prepared foods, given at two- to three-hour intervals.* Often, by this means, it is possible to keep a patient from losing weight for several months at a time and occasionally slight increases in weight occur.

Hemorrhage

Practically all of these tumors cause bleeding, either of a continuous nature, during which small quantities of blood are lost over a long period of time, or large, massive hemorrhages occur at intervals, or the two go hand in hand. In both types of cases, the bleeding is due to erosion of blood vessels of varying size by the advancing tumor.

The blood picture in these types of cases may be nearly normal, but frequently anemia is present, which may be mild or severe and of the secondary type, with a real or apparent leukocytosis. The former usually occurs in those cases in which secondary infection of the tumor mass itself is present, and the latter in those cases where the blood volume is diminished.

Whenever a large hemorrhage occurs or when constant oozing is present, the bleeding should be stopped by ligation or by the use of the cautery, if the vessel is accessible. However, this is rarely possible, so only palliative measures can be used. The patient is put at absolute rest in bed and cold applications, in the form of an ice bag usually, are applied locally. Such drugs as ergot, Styptysate or Ceanothyn may be given by mouth, with the hope that they may aid to control the bleeding; and besides these, sedatives or narcotics should be given, to keep the patient quiet until all active hemorrhage ceases. After the bleeding is controlled, the patient may resume his activites as soon as he is able. Recurring hemorrhages frequently follow and at times are the cause of sudden death.

All the methods at our disposal to stimulate the hematopoietic organs must be tried. Foods rich in iron, such as green vegetables, and also liver, brain, kidney and sweetbreads, should be given daily in the diet and prepared in various ways, so that the patient does not tire of them too quickly. Besides, medication, either with some organic or inorganic form of iron may be given and, where possible, extra vitamins A and D should be administered. Cod-liver oil frequently cannot be tolerated, so that some substitute, such as haliver oil with viosterol, in capsule form, one capsule of which is equivalent to three teaspoonfuls of cod-liver oil and ten drops of viosterol 250 D, should be given three times daily.

The patient should be encouraged to be up as much as his physical condition will permit, and whenever his strength can be increased enough to allow a bedridden patient to become ambulatory, this should be done, as it is a certain means of buoying his mental attitude towards his existence. He should be encouraged to eat at the table with the family and partake in whatever pleasures his strength allows. Plenty of fresh air and sunshine should be obtained, either on the porch, in a room

*Trophonine, over cracked ice, works well in these cases.—Ed.

with the windows wide open or in automobile rides. Whatever can be done to divert the patient's mind from his own condition should be done.

Insomnia and Pain

Sleep is one of those essentials which must not be overlooked. When a patient is well rested, he is more apt to be cheerful than when he has difficulty passing the nights in comfort. Every aid to promote sleep should be used and, wherever any difficulty occurs in obtaining it naturally, hypnotics should be given. Of these, phenobarbital or any of its derivatives is preferable and should be given in doses large enough to produce results.

Pain sooner or later enters the picture of these cases and must be controlled. Opiates, in my opinion, should be tried only as the last extremity. No doubt they help lessen the pain, but practically never completely relieve it. One might say that the best one can expect from opiates is to make the pain less unbearable. Narcotics not only deaden the pain but they also depress the patient's condition generally so that he has little desire to eat or to be about and frequently loses all interest in things, other than his pain.

Early effective relief, when the pain is not too severe, is obtained by the use of analgesics, alone or combined with codeine. Acetylsalicylic acid, amidopyrine, either alone or together, in five to ten grain (0.3 to 0.6 Gm.) doses every four hours, may help, and, if not, then these plus codeine sulphate, one-half to one grain (0.03 to 0.06 Gm.) should be given orally.

If, despite these drugs, the pain still persists then it is best to resort to some type of surgical procedure for its relief, rather than to use opiates. Any method that will completely block sensory stimuli from reaching the brain is the plan to try. Whenever the anatomy permits, alcohol injections of the nerves over which the pain stimuli travel is indicated. If it is necessary to block several nerves which cannot be reached by alcohol injections, then severance of the dorsal nerve roots should be done. Due to the overlapping of sensory nerve fibers, it is best to sever also one or two dorsal roots above and below the nerve which supplies the involved region, in order to produce anesthesia of the diseased area.

Frequently, pain subsides when these cases are treated with some form of chemotherapy, such as colloidal lead, lead selenide or colloidal gold, given intravenously. At times there is even a slowing of the growth of the tumor and some reports of cure following the use of colloidal lead have appeared. Certainly any of these preparation are worth a trial, but one should not be too optimistic regarding their use, nor should the family be given too much encouragement as to the outcome following their use.

Of course, when all other methods fail or have outlived their usefulness for relief of pain, then morphine or any of its allies must be used. These drugs should be given by hypodermic injection and also in large enough doses to deaden the pain as completely as possible. This type of medication, when used, should signify that the doctor has reached the end of his resourcefulness and that he expects the decline to be rapid and death near at hand.

Every effort to prevent bed sores and other trophic disturbances must be made, by observing hygienic measures. Whenever possible, a well qualified nurse should be secured as the patient's constant attendant.

Conclusions

1.—The care of a patient with an inoperable malignant tumor taxes the resourcefulness and abilities of the medical attendant to the utmost.

2.—Palliative operations, to relieve pain and obstructive symptoms, are definitely indicated.

3.—Cheerfulness and hopefulness must be stressed throughout the illness of the patient, in order to keep up his morale.

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The only way to make money, in the long run, is by rendering service, and this is as important with our money as with our lives.—Roger W. Babson.

The Specific Treatment of Goiter

By Emilian O. Houda, M.D., Tacoma, Washington

A *SPECIFIC* treatment of thyroidal disease, directed against the primary infectious cause of goiter, is here presented in brief, with case reports.

All thyroidal perversions, as shown by clinical symptoms, notable tissue changes, irregularities of body and glandular biochemistry and those complications peculiar to and characteristic of the disease, including tumorous growth as goiter itself, are sequelae of a primary infectious cause Contrary to current and decades of past opinion, inorganic elements, as naturally assimilated in quantities more than sufficient for all normal and abnormal needs, have little in common with the true cause of this disease. Microorganic forms of life, as primary causes of all etiologically determined specific diseases, are invariably present in all goiters and, through a necessary original method,* can be cultivated from all of them, regardless of clinical or pathologic variety. Goitrogenic microorganisms, by subscribing in full to all of certain established postulates, are proved as the primary "activating" cause.

Whether this disease be surgical or not, is ultimately determined by the character of the tissue changes. Early thyroidal disease is not surgical; whereas late goiter, with its irreversibly-fixed paraplastic tissue, as in well established types, cannot be made to disappear by any known means except surgery. In either instance, the most important item of treatment is that directed against the primary infectious cause, through immunization with a product made of the cultures of goitrogenic microorganisms. When prepared of the cultures obtained from a patient's goitrous tissues, this product is ideally effective in speedy and complete cure, including the all-too-common residual symptoms, with an assurance against the not-uncommon recurrences of the original disease.

Goiter Vaccine

Goiter vaccine, as prepared and therapeutically applied, is a suspension of goitrogenic micrococci, killed with heat, in saline solution, to which tricresol is added as a preservative‡. The bacterial concentration is approximated at ten billions per cubic centimeter.

The dosage in any instance, is started with a drop or two; subsequent doses are increased to the point of producing a skin reaction that covers an area two or three inches in diameter. Systemic reactions are never of severe degree when ascending dosage is adhered to. Injections are administered at twenty-four, forty-eight and seventy-two hour intervals.

Most goitrous patients, on receiving a subdermal test dose of one drop, develop a skin reaction which is quite characteristic, due to the fact that active thyroidal disease sensitizes the individual to the bacterial protein. This sensitivity disappears after a few injections, and late therapeutic doses fail to produce reactions of note.

In the preoperative immunization of patients with surgical goiter, a polyvalent vaccine is made of as many cultures as are available from recently thyroidectomized patients. Thus far, a mixture of fifteen to twenty cultures has been very effective. Postoperative immunization, in each instance, has been accomplished through the use of autogenous cultures, converted into vaccine and administered in ascending doses over a period of from four to six weeks.

In the few selected and condensed case reports which follow, to allow no factor that might inveigh against the validity of this specific treatment, no iodine, nor any other medication that is considered to be effective in this disease, had been administered.

Case Reports

Case 1: Miss M. T., age 16. From a best previous weight of 120 pounds, this patient was reduced to 80 pounds after suffering with an acute syndrome for three months, due to

*Houda, E. O.: Pleomorphic organism cultivated from goiter, etc. "Proc. The First International Biological Congress," Maisson and Co., Paris, 1931: Vol. 1, page 522.

Id.: Bacteria from goiter tissues; bacteriological technic for their cultivation. *Northwest Med.*, July, 1928.

‡The author is prepared to furnish without charge, to a few physicians who are genuinely interested in this subject and who will positively undertake to send him full clinical reports of cases treated, a supply of the stock goiter vaccine described. He will also undertake to have autogenous vaccines prepared, for those who wish to use them and will furnish material collected and prepared according to instructions, at a cost approximating that charged by the average unsubsidized biologic laboratory for such work.

exophthalmic goiter. The pulse rate, on first consultation, was 160; a general muscular tremor of body and limbs was present; the menstrual flow had ceased. During the week preceding the first consultation, she vomited practically all food and retained little water. She was too weak to walk about and had to be carried.

Six weeks of vaccine treatment was followed by complete relief. She gained ten pounds in weight within the first month. At the end of three months she had gained a total of thirty pounds. Goiter and exophthalmos disappeared completely. There has been no recurrence at the end of six years, during which interim she married and is the mother of a normal child of three years.

Case 2: Mr. W. R. W., age 47, a baker by trade, had an acute type of Graves' disease which developed without notable preceding goiter. He lost seventy pounds of weight in eight months. The metabolic rate was plus 86. He was very tremulous and complained of great fatigue. The neck was diffusely enlarged with a smooth and firm goiter.

Polyvalent vaccine treatment, over a period of one month, was followed by relief within sixty days. At this writing (five years later), he remains well and actively engaged in his own bake-shop, with no evidence of former disease except a slight stare.

Three months after the institution of vaccine treatment, he had a basal metabolic rate of minus 39, which was associated with symptoms of myxedema. Thyroid extract was distinctly indicated, but this patient was so delighted with the reversal of the symptoms of the recent past that he said: "You may use me as you would an experimental rabbit and see if this condition does not correct itself, of its own accord." Thyroid extract was not administered, and the myxedematous condition disappeared in about three months.

Case 3: Mrs. E. L. D., aged 47. This patient had a goiter removed four years previously, at an eastern clinic, after she had suffered for one year with a toxic syndrome that had been superimposed upon an old adenoma. Following the first operation she had a severe post-operative crisis. Residual symptoms remained and, within six months, thyrotoxic signs were again active. Goiter recurred before the year passed. She presented herself with the usual signs of longstanding thyrotoxicosis and in a very depressed mental state.

Vaccine treatment was instituted. At the end of two weeks, with an injection administered every other day, her pulse rate dropped to 90, from an initial rate of 130, and she gained four pounds in weight, without hospitalization or other medication. Subjective and objective improvement brought about a needed confidence. The goiter was removed under ethylene anesthesia, following which a course of fifteen injections of vaccine, prepared from the cultures obtained from her goitrous tissues, was given. In six weeks relief was complete and she returned to her home in Montana with every thyrotoxic symptom dissipated and with a gain in weight of thirty pounds or more. Two years later she is in excellent health, as in the years previous to the original onset of exophthalmic goiter.

Case 4: Mrs. V. A., age 40, a school teacher who had been surgically treated, four years previously, for a severe thyrotoxic goiter. As usual, this was followed by marked improvement, but active residual symptoms persisted and goiter returned before two years elapsed.

Two weeks of polyvalent vaccine treatment caused a drop in pulse rate; tremor and nervousness improved; and a blood pressure of 190 was reduced to 140.

Her goiter was removed and autogenous vaccine treatment, over a period of six weeks, was followed by complete relief of all active symptoms, including a large degree of exophthalmos. A temporary myxedema, six months after the goiter was removed, cleared spontaneously.

Case 5: Mrs. W. R., aged 55, had a long-standing nodular goiter, which had been toxic for several years in a rather mild form. The chronic thyrotoxic syndrome was associated with so marked a fibrillation of the heart and pronounced murmurs, that a permanently damaged heart seemed a certainty. A mild grade of arthritis of both knee joints was also present.

She was preoperatively treated with vaccine for two weeks, which caused a drop in the pulse rate to 90, from an initial count of 110. Subjective and objective improvement was noted. Under local analgesia, thyroidectomy was performed without incidents of note. Autogenous vaccine treatment caused an early and complete dissipation of active symptoms before five weeks elapsed. Fibrillation of the heart disappeared and the pains in her knee joints also disappeared.

With a renewed sense of euphoria, she returned to her home in Wisconsin. Four months later, she reports a gain of twenty-five pounds in weight and all active symptoms absent. Her family physician reports himself surprised at the improvement in her heart action, which had not been amenable to his earlier attentions.

Case 6: Mr. W. J. M., aged 61, presented himself with an old, nodular and recently-toxic goiter, with much tremor, loss of weight and physical prostation. His heart action was very irregular and there was edema of both legs, limited above the ankles. He had disposed of his business because of ill health.

Three weeks of vaccine treatment was followed by marked improvement, that permitted a safe and little reacting thyroidectomy. A course of autogenous vaccine injections, over a period of five weeks, found him so much improved that he returned to his business within sixty days.

Three months after the goiter removal, thyroid extract was administered to correct a marked myxedema, which disappeared and not to return. Three years later he is well and actively engaged in his business.

Case 7: Mrs. A. N., aged 68, had a nodular goiter of 45 years duration. Thyrotoxic symptoms of rather mild degree had been present for several years. During the last year she had developed a severe thyrotoxic syndrome. Her weight was reduced to 80, from a normal weight of 110 pounds. The pulse rate was 130, on initial count. There was marked fibrillation of the heart, with edema of both legs and ankles. She complained of the usual symptoms and fre-

quent and watery stools, with "much indigestion" and not-infrequent vomiting.

After three weeks of vaccine treatment, the pulse rate was reduced to 80 and there was an improvement in all active symptoms. Thyroidectomy was performed, under local analgesia, after which autogenous vaccine was administered for six weeks. A rapid increase in weight took place. At the end of four months she had gained a total of 32 pounds and not a residual symptom remained. One year later she reports herself as feeling better than she has felt for years.

Case 8: Miss C. H. presented herself for treatment with a diffuse colloid goiter and evident hypothyroidism. Six weeks of vaccine treatment caused a complete disappearance of the goiter in three months. The circumference of her neck was reduced to 15, from an initial measurement of 17 inches. Six years later she has a normal neck and is teaching school, with a keen mind that is evidence against any considerable degree of hypothyroidism.

Case 9: Mrs. M. J. M., age 26. Two weeks after a thyroidectomy, done in an attempt to cure a severe toxic syndrome, this patient suffered with an acute dementia, which required institutional care with physical restraint. After seven months of such care and little improvement under the usual forms of medication, she was placed upon polyvalent vaccine therapy, which was administered over a period of one month.

Following the first injection of two drops, as a trial dose, she developed a violent reaction resembling a "Herxheimer," such as occurs occasionally, following the initial dose of arsphenamine in the treatment of brain syphilis. This acute exacerbation of mental symptoms subsided in seventy-two hours. Subsequent and increasing doses were resumed and continued throughout the month, without further reactions of an untoward nature. Thirty days later she was allowed to return to her home, greatly improved. She recovered and remains so, at this writing, three years later. This was the first of two cases of acute, postoperative dementia thus treated and relieved.

Case 10: Mrs. J. V., age 32. Seven months after thyroidectomy for a moderately toxic goiter, this patient was committed to the Washington State Psychopathic Hospital with a depressive and homicidal type of dementia. Vaccine was administered during the first three weeks. Following the first dose of two drops, she also developed a violent exacerbation of mental symptoms, during which she crashed through a window, but unhurt by the short fall. Six weeks after admission she was as well as at the end of three months, when she was discharged, "cured." She remains well at this writing, two years later.

Case 11: B. P., a female child of eight years, with toxic goiter. The father and mother of this child are both free of goiter. The pulse rate, on first examination, was 130. She was very nervous.

Because she lived on an island and distant from a physician, the mother was instructed relative to the administration of the vaccine, which was given in increasing doses, over a period of six weeks. On returning, two months later, the pulse rate was 90; there was obvious improvement; nervousness had disappeared to a large degree, and she had gained six pounds in weight. While the isthmus was still palpable, there was an obvious shrinkage of the goiter.

Case 12: Mrs. E. J. H., aged 45, with a mildly toxic and bilateral nodular adenoma of more than twenty years' duration, made a complete recovery within one month, after goiter removal and autogenous vaccine therapy. She later brought one of two daughters, age 13, who was distinctly cretinoid, with a central enlargement of the thyroid of visible degree, probably congenital in origin. The intelligence test of this cretinoid child was below that of her eight-year-old, normal sister.

She was placed upon therapy, with a vaccine which was prepared of the single-strain cultures obtained from the mother's goitrous tissues. In two months, after fifteen injections of vaccine, from a sheepishly shy and very retiring child, she improved to the degree that, for the first time in several years of school attendance, she made A and AA grades in school tests. Previously, she had never made a passing grade in any subject. She gained several pounds in weight; a retarded growth was stimulated; and mental and physical improvement was so marked that a grown brother, on returning home after several months' absence during and following the period of treatment, hardly knew her on first sight.

Case 13: A lad of 13 years, the son of a goitrous mother whose older son and a younger daughter are normal, is a typical cretin with stunted physique and mentality. His thyroid is not palpable. From the view of ultimate cure this case seemed hopeless. However, the mother, who is a graduate nurse, desired and was given a container of goiter vaccine which she administered over a period of two and one half months. Incredible as it is, for the first time, in more than a decade of varying and futile treatments, that had been advised by more than one hundred physicians consulted, since the lad was observed as an abnormally slow babe, he has shown notable improvement in physical appearance and mentality. The myxedematous condition improved, a scaly skin peeled and softened, and he sweated for the first time. He took an interest in his surroundings, growth was stimulated and, with the myxedema improved, he lost some weight. Thyroid and pituitary substance were administered after getting notable improvement from the preliminary course of immunization. He has been under glandular therapy for a year, during which a most phenomenal response has taken place. His stature has increased by more than a foot, "frog belly" has disappeared, and his private tutor reports him as learning more during the year than during all previous years combined. The mother denied she ever had a goiter, but on palpation a small adenoma was palpable low down in the neck and hidden behind the right clavicle. During the past year this has grown sufficiently to be obvious. This case, with other cretinoid types will be the subject of a later dissertation, stressing the primary infectious cause of goiter in general, and this cause as the necessary thread of evidence to the continuity of the complete story of thyroidal diseases.

Case 14: Mrs. P. W. P., aged 30, had a small

non-thyrotoxic goiter, chronic appendicitis and nervous complaints which were attributed to pelvic disturbances. Aside from a simple retroversion, no pelvic abnormality was demonstrable by palpation. This is a type in which goiter is many times interpreted as the result of other glandular disea e: in this instance, the ovaries.

The retroversion of the uterus was corrected and the appendix and goiter removed within the same hour. In due course of time, the usual micrococcus of goiter was cultivated from the removed goitrous tissues and an autogenous vaccine was prepared and administered, with a most satisfactory result. Most of her complaints were ultimately attributed to the bacterial toxicity of a socalled "non-toxic" goiter.

Summary and Conclusions

These results are typical of this specific treatment, which is directed, exclusively, against the primary infectious cause of goiter. Generally speaking, there appears to be no symptom that is peculiar to and characteristic of active thyroidal disease, but is amenable to this specific treatment, through the use of autogenous vaccine after goiter removal.

So far as I can discover the literature records no similar run of consecutive results, by other treatments heretofore applied, iodine combined with surgery not excluded. To prepare severely toxic goiter patients for goiter removal without hospitalization and iodine, then remove the growth with no postoperative crises and allow the patients to return home safely, within the same week of operation, and be completely relieved with no active residual symptoms, within a relatively short time, is not, to my knowledge, of medical record.

Fidelity Bldg.

An Experiment in Sex Education

(A Preliminary Report)

By G. P. Lawrence, M.E., M.D., Westerville, O.

ONE of the most promising educational developments of the present time is the effort to adapt the college curriculum to the actual needs of the student. As one phase of this effort, we find that pages of the pedagogic, sociologic and parenthood magazines carry frequent articles on the education of children and adolescents in sex matters.

If this movement is to prosper and advance as rapidly as possible, it will be necessary that those who have conducted successful courses of instruction share their experience with others. Reports should include: (1) the need or demand met; (2) the method; (3) the material used, in great detail; (4) the results achieved; and (5) conclusions and suggestions for the benefit of others.

For this reason it will be of interest to describe the development of a program of sex education, which has grown entirely as a response to a demand, with very little attempt to propagandize or present any ideas not called for by the students themselves.

How it Started

Ever since beginning the practice of medicine, nearly 20 years ago, I have encountered problems of patients, not necessarily due to physical ills, but involved with various phases of married life. One of the first things I learned was that there is a great need among all classes of people for more definite information and guidance along the lines of friendship and the preparation for and the participation in the marriage relationship.

I am a physician in general practice in a small college town, and consequently have a chance to observe life rather closely and become fairly well acquainted with people both old and young, faculty and students, college folk and uneducated ones. This active contact with the ailments and foibles of many people has been a sort of laboratory course, accompanying and illustrating the "book larnin" furnished by a double college education and much subsequent study of books and scientific periodicals.

During the War I lectured to my company and others on sex subjects, and advised a large number of the men concerning their personal affairs. Since returning to private practice I have missed none of the many opportunities offered to help pa-

tients or give talks on friendship, love and marriage.

Five years ago, a home economics professor, who is a patient of mine, came to me with some questions asked by students in her course on "Child Development." This course began naturally, with a consideration of pregnancy and prenatal care of the prospective mother. Many of the questions which occurred to the students were brought up in class, because no answers could be found in their texts and collateral reading. Quite a percentage were highly technical, requiring not only medical training and marital experience, but also special training in the field of sex, to answer them correctly and fully. Some of them required quite extensive answers, involving considerable discussion.

Realizing the difficulty of transferring a physician's ideas through a non-technical person to a distant group, she requested that I meet the class and answer the questions directly. I did so, with pleasure and profit to all parties concerned, as I found them a group of earnest young women, hungry for basic truths, which their homes and earlier education had not supplied. I derived a great deal of pleasure and inspiration from supplying this need.

Method

In order to avoid embarrassment and bring out further questions, and also to furnish opportunity for careful advance preparation of the answers, a request was made that the students write out additional questions and deposit them in a box provided for that purpose in the hallway adjacent to the laboratory.

These slips were collected and sorted, duplicates eliminated and overlapping questions combined. Many queries called for statistics or comparative and illustrative matter, which had to be looked up before notes of the proposed replies were put on paper. The next morning the questions were answered as outlined, and further questions and discussion from the class were elicited. The plan of submitting questions anonymously was a valuable feature, for it brought out quite a number of questions which required much diplomacy to avoid embarrassment in answering them.

The next semester, in another course on "The Family," the opportunity was offered to lecture upon the topic "Friends and the Chosen One," which was treated in one chapter in their text-book[1]. Two class periods were devoted to these lectures, the first covering the mental and spiritual, and the second the physical features of friendship and attraction between the sexes. A special effort was made to explain the "why" of attraction and compatibility. Definite methods were suggested for testing and classifying friends, *prior* to "falling in love." They were urged to surround themselves and associate principally with friends of proven eligibility, thus avoiding a risky exposure to incompatibles. It was insisted that carefully studied choice of a spouse was thus not only possible but highly practical, and a good preventive of future discord. At the close of each lecture, questions were invited, to be submitted in the same manner as before. These were again prepared and answered according to the same method.

Each year I have repeated this work and each year the interest has grown, as proved by the increased enrollment in these classes, in spite of decreased college attendance, and also by the present custom of many students making sure before they enroll that this special feature will be included in the course.

As a result of the discussion of this work, quite a number of requests to speak to other women's groups and to groups of young men have been received. The talks have been repeated or modified as suited their needs, and the evening has been concluded by the asking of questions and the answering of them extemporaneously. No record has been kept of these questions, but they have covered a tremendously broad scope, from ethics to pathology, and from doctrine to detailed technic.

In answering questions as to the technic of lovemaking, methods of contraception, etc., no attempt was made to present details, but the general principles involved were outlined, harmful methods were named without being described, and it was explained that the present stage of medical research did not furnish any perfectly satisfactory methods of prevenception. While some are decidedly reliable, all have certain disadvantages, but better ones will probably be available later. They were encouraged to consult a qualified physician for detailed information when the need arose, and the offer was made to guide them to one who

1.—"The Family and Its Members," Spencer; Lippincott.

could give them scientific and sympathetic help.

Evolution of the Course

In the first two years, considerable time was devoted to lecturing upon the basic principles involved. Gradually suitable reference books were discovered, and now assignments of outside reading are made several weeks in advance. From this the students gain a large part of their basic information, including some knowledge of anatomy and physiology and a small working vocabulary. This has at least four advantages: (1) Students actually get a better and more gradual introduction to the subject (an abrupt introduction may be a tremendous shock to an uninformed girl); (2) they can and usually do spend more time upon the subject than could be devoted to class-room work only, and thus get a better understanding; (3) they are enabled to ask better and more intelligent questions; and (4) some of the time previously spent in lecturing can now be devoted to the answering of additional questions or the more thorough discussion of those which otherwise would have to be answered hastily.

During the first few meetings of the class, there was some mental discomfort on both sides of the speaker's desk when embarrassing questions were being discussed. However, practice made it easier to handle such problems in a way to avoid unpleasant reactions and lead the students to approach all questions in a detached, matter-of-fact way. For several years now there has been no trouble on this score.

From the beginning the students seem to have appreciated the effort to supply them with authentic information on this most difficult and important subject. At no time has there been any sign of pruriency or lack of respect for the subject and its presentation.

During the five and a half years that this work has been done, a total of over 250 different questions have been accumulated. The actual total number of questions submitted has been three or four times that many, but elimination of duplicates and the combining of some similar questions, has reduced it to that number. As the two courses overlap considerably, no attempt has been made to separate questions submitted in one course from those received in the other. These questions have been arranged in logical order in thirty different classifications. It is regretted that no record was kept of the questions presented verbally in the conferences in the fraternity houses. These, of course, covered a somewhat different field, only partly overlapping those herewith reported. They would undoubtedly add at least another hundred to the list.

In the following list, many of the questions, as submitted, contained obvious errors or were not clearly intelligible, so it was not always possible to answer them as specifically as could be desired. For the sake of giving an exact picture of the students' minds and pens, they are printed exactly as submitted, without any correction of grammatical and other errors, and without editing to bring out the true meaning more clearly.

The following is a list of the different classifications, together with a typical question or two from each classification.*

The Questions

Juvenile Sex Education

What would you do with two children, a boy of 5 and a girl of 7, who had discovered the charms of rolling and tumbling and lying on each other, apparently enjoying good sensations produced by contact of their sex organs?

Puberty

Why is it that the time of puberty is such a strain to many children, both mentally and physically, while others do not seem to notice it?

General Health

If a woman, pregnant for the first time, is in a weak, run-down physical condition, will this weakness be inherited by her child?

Why do women wear so much lighter clothes than men? Are they too light for health?

Viewpoint and Attitude
Married vs. Single Life

This course, "Child Development," is creating in me a desire never to become a wife. Before I have always looked forward to those days, but now I feel more like shunning them. How do you think I can overcome this?

*A complete list of questions may be had from the author upon request.

Sociology, Heredity, Sterilization

What should be done to solve the problem of bad heredity?

What is meant by "Eugenic Sterilization?"

Does it produce any bad effects on the person treated?

Time for Marriage
Economics of Marriage

Should marriage between two fairly well educated people, say college classmates, be postponed for financial reasons?

Choosing a Mate

Do you think that a girl who is a college graduate should marry a man who has never gone to college? Could such a marriage turn out happily?

What happens to the fellow who chases a new girl every week? Can he be happily married?

I know a girl who is preparing to teach school. Now she wishes to marry a man whom she knows will not be able to have children for physical reasons. Do you think this should be done?

Jealousy

If jealousy is present, should the couple try to overcome it; or does it indicate incompatibility and should they stop going together?

Love as an Art—Tests of True Love

Please enlarge on the subject "Love as an Art," including the technic of sex relations.

How is one to know when one is truly in love? Is there any test for "true love"?

Erotism, Masturbation, Pollutions

What is the difference between masturbation and onanism?

I have heard the statement that more satisfaction was obtained through masturbation than through sexual intercourse. Is this true?

Does the seminal fluid contribute anything to the blood that adds to the physical vigor? Is it as important as social hygiene workers usually make it?

Perversions

Please explain what is meant by "sexual pervert." Are there several kinds?

Kissing, Spooning and Petting

What all is taken into consideration with "petting"? I am not clear as to what all is evolved.

Does the girl who refuses to "neck" have a better or a poorer chance to marry well than the girl who does?

Menstruation

Why do women have to menstruate? I understand the lower animals do not.

Is cramps during menstruation always a misplacement of the uterus? If not, what else could cause it?

Leukorrhea, and Other Non-Venereal Diseases of the Sex Organs

Does either leukorrhea or masturbation cause or tend to cause sterility or barrenness? Does either have any ill effects upon the unborn child?

Do mumps affect the sex organs of girls like they sometimes do in boys?Will it do any permanent harm?

Venereal Disease

Which is the worst venereal disease and are they all dangerous, or are some "no worse than a bad cold"?

Does gonorrhea always prevent childbirth? If it is chronic, how do you know you have it? Are eyes always weak in the presence of gonorrhea? What is the best thing to do to cure it?

Pre-Marital and Marital Instruction

Would it be advisable and recommended for a young couple contemplating marriage at the earliest possible date to read together a book such as Margaret Sanger's "Happiness in Marriage"?

Is there any basis or logical reasoning behind the opinion that certain people entertain; namely, that of desirability of premarital sex experiences? What is your opinion regarding this assertion?

Desire

I have heard that inactive men (that is, men not participating in physical exercise to any great extent) are more emotional and demand sexual relations oftener than an active man. Is this so? Why?

Could a normal woman control herself and refuse to respond to her husband's sexual desire under normal conditions?

Intercourse

Several young people have lately expressed to me this opinion: That sexual in-

tercourse between two people who love each other is perfectly all right whether inside the marriage bond or not. Since it is the highest and most sacred expression of love, they say, there is nothing wrong in it. I have always believed that intercourse before marriage is immoral, even though the couple is engaged. Please discuss from a doctor's standpoint, as well as the moral side.

For how long a time does sexual intercourse last?

Why is it, in sexual intercourse, that men sometimes suffer more than women from the effects, and again it is vice-versa?

Marital Harmony

It was related in our class the other day that most couples suffered either from the fact that they had too many children or from family adversity, such as quarreling, nagging, disregard, etc., because of nervous strain. Why should not birth control be practiced and eradicate such situations?

What precautions should a couple take to assure that they would make a happy marriage? Should this be done before or after they are engaged?

Fertilization

As I understand, menstruation does not normally take place during pregnancy. If this is true, would a person menstruate if she became pregnant two days before the regular menstrual period?

Does the breaking of the maidenhood membrane mean that conception has taken place?

Birth Control

Shall we go to a physician for personal information on birth control before marriage? If so should the couple go together?

Does the postponement of having children for several years after marriage necessarily injure the health of either the husband or wife?

When you take into consideration the troubles people get into because they cannot afford to marry early and have children, why wouldn't it be better for them to marry young and practice birth control until they can afford to have children?

If a husband is sterile, must they adopt children, or would it be all right for the wife to have them by some one else? What if it were the wife that was sterile?

Determination of Sex

Is there any way to regulate intercourse so as to control the sex of the offspring?

Embryology and Developmental Anomalies: "Marking the Baby"

Does the state in which the mother's mind is in during pregnancy have any effect upon the unborn child? If the mother has sorrow during this period will the child be of a sorrowful nature or disposition?

What is the cause of babies being born with defects like hare lip, cleft palate, extra fingers, spina bifida, etc.? Are any of these due to heredity? Are they because the parents have done something they should not have done?

Genital Abnormalities and Operations

Is circumcision necessary for all boys? If so at what age is best? Aren't there some cases where it is needed and others where it is not?

Pregnancy and Pre-Natal Care

How long is it before a woman can tell she has conceived, or is pregnant? And what are the first signs of pregnancy?

Is it harmful to the mother and fetus to have sexual intercourse during pregnancy? If not, how often should it occur?

Labor and Delivery; Abortions

If a woman has had a miscarriage, is she capable of producing normal children? If she has had an abortion? (Criminal abortion.)

Which makes the better mother, a girl of 19 or a woman of 35? What is the ideal age for motherhood?

Post-Natal Care

Can a woman "keep her figure" and have babies?

For what are babies "measured"? Does this do any good?

Divorce

According to records, it is known that about 95 percent of divorces are caused by sexual disagreement or lack of sexual satisfaction. Why wouldn't it be better for a couple contemplating marriage, to have sexual intercourse while single and find if their desires are satisfied and thus come to more of an agreement regarding sex relations? Of course, I understand that such relations

should take place only between sane and educated people who would not abuse the privilege.

Free Love and Companionate Marriage

Does the practice of free love elevate the true standard of love?

Do most companionate marriages, so-to-speak, result in family marriages finally?

Miscellaneous—Unclassified

Does self-consciousness have anything to do with moral danger in regard to sex?

Shouldn't these principles you have been giving us be taught to all college students at the beginning of their freshman year? Wouldn't it be of great help in making the most of their friendships? Why isn't this done?

CONCLUSIONS

1.—This work has demonstrated again that there is a great need for education in sex matters, because:

A.—A large proportion of people reach marriageable age without adequate information on the anatomy and physiology of their sex organs; and

B.—Very few persons receive practical and useful training in the mental and spiritual phases of friendship and married life.

2.—College students and other young people are seriously interested in preparing for marriage and respond enthusiastically to authoritative teaching.

3.—The question and answer plan is an excellent method for bringing out and meeting the needs of a group.

4.—An average well informed physician must do special study to cover this field, but there are now plenty of books he may use to do so. (Discussion of this is planned for a later article, which will include the bibliography for this one.)

5.—The leading high school and college educators are alert to the need for instruction on family and marital relationships. The physicians who prepare themselves to answer acceptably the many questions in this field will find plenty of use for their special talents, not only in helping patients, but in the field of education.

Banana Diet in Gastric Ulcer

(A Preliminary Report)

By George A. Bendlage, M.D., Long Beach, California

THE treatment of gastric ulcer has, no doubt, been one of the pitfalls for all physicians at times. The various diets, such as the Sippy, the Lenhartz, the Jarotsky diets, protein therapy, bacterial vaccines, adrenocrotin, etc., have been used, with varied results.

For the past two years I have been using a banana diet in the treatment of non-surgical ulcers and hyperchlorhydria. Rarely need alkalies be used with this diet. The results have been astonishing in the relief of symptoms. The pain, burning and vomiting have, in most cases, been relieved within the first twenty-four hours.

Focal infection is first to be ruled out. If any diseased site is found, prompt measures should be taken to remove that source of infection. After that is done the patient is placed on a diet of bananas and cream, as I shall indicate later, and is advised to use no sugar during the first two weeks of the diet. He is told to "mush" the bananas well and to masticate each mouthful well before swallowing it. The reason for this, in my experience, is that bananas and cream tend to increase the amount of mucus in the stomach. The mucus formed thereby tends to act as a protective agent to the mucosa, as the flow of bile and pancreatic juices tends to protect the duodenal mucosa below the papilla of Vater.

In this treatment I have rarely given any medication other than sodium phenobarbital. The number of cases treated so far is no criterion to establish the value of this diet, but the results have been so satisfactory to me that I am hoping it may be of some benefit elsewhere.

I have found that, in the use of the banana and cream diet, there is a gradual return of the acid to normal—not a rapid drop, but a gradual lessening of acidity by neutralization and mucus protection, rather than by alkalinization. Pavlov has

definitely shown that fats inhibit the secretion of acid gastric juice. Bananas and cream do the same. They also pass rapidly from the stomach without irritating that viscus greatly, and cause only slight acid production. Eggwhite and salt-free butter have a similar action. Water is to be taken only at definite intervals during the first two to three weeks.

It has been my experience that a patient, returning with renewed symptoms after the usual alkaline treatment, generally has a higher gastric acidity than at the beginning of the treatment.

The usual routine that I have been using is charted as follows:

FIRST THREE DAYS

7:00 A.M. Glass of tap water.
8:00 " One banana and 3 oz. cream.
9:00 " Two eggwhites, whipped.
10:00 " One banana and 3 oz. cream.
11:00 " One glass tap water.
12:00 " Two bananas and 3 oz. cream.
2:00 P.M. Two eggwhites, raw or whipped.
3:00 " One glass tap water.
4:00 " One banana and 3 oz. cream.
5:00 " Two eggwhites, whipped.
6:00 " One glass water.
7:00 " Two bananas and 3 oz. cream.
9:00 " Two bananas and cream or 1 ounce of unsalted butter.
10:00 " Sodium phenobarbital, 1½ grains (0.1 Gm.).

FOURTH TO EIGHTH DAY

7:00 A.M. Glass of water.
8:00 " Cream of Wheat (well cooked in steamer); one banana; 3 oz. cream.
9:00 " Glass of water.
10:00 " Well buttered toast; two soft eggs (poached); one banana (well masticated).
11:00 " Glass of water.
12:00 " Cream of Wheat (or Jello); one banana; glass of milk (with Jello).
2:00 P.M. Well buttered toast, two eggwhites; beaten.
4:00 " Cream of Wheat; two bananas and 3 oz. cream.
5:00 " ½ glass of water.
6:00 " Cream of Wheat; two bananas and 3 oz. cream; ½ glass of milk.
8:00 " Glass of water.
9:30 " Cream of Wheat, Jello or ice-cream, with 3 oz. cream; sodium phenobarbital, if needed for sleep.

FROM EIGHTH TO FOURTEENTH DAY

Milk toast, buttered toast, mushy cereals, custard, Jello, ice-cream, cream of corn, or cream of asparagus soup may be added and a choice given at intervals designated.

7:00 A.M. Glass of water.
8:00 " Choice, with one banana.
10:00 " Two bananas and cream.
12:00 " Choice.
2:00 P.M. Two bananas and cream.
4:30 " Choice.
7:00 " Two bananas and cream.
9:00 " Two eggwhites (beaten or raw).
10:00 " Sodium phenobarbital, ¾ grain (0.05 Gm.).

The diet is gradually returned to normal during the next ten days, giving three meals only, at 8:00 A.M., noon and 5:00 P.M. Two bananas (with or without cream) are to be taken at 10:00 A.M., 2:30 P.M. and 8:00 P.M. Six bananas are to be taken daily indefinitely, two to three times a day. Two eggwhites, beaten, are to be taken at bedtime for a period of 10 to 12 weeks.

There is nothing complicated in this diet list, and it is not unpleasant for the patient—in fact, it is quite agreeable, as most ulcer patients are tired of taking powders. Water and milk should be definitely limited and sodium phenobarbital should be given, in appropriate doses, at bedtime, for from ten to fourteen days.

The advantages of this treatment may be summarized thus:

1.—It brings about a gradual diminution of gastric acidity.

2.—It protects the gastric mucosa with an increase of mucus, the primary protective agent of the stomach.

3.—It causes a normal return to proper acidity without alkalies.

4.—It requires no catharsis, as the excreta of a banana diet is practically double the intake.

5.—The results are more satisfactory than those of the alkali treatment, and the results seem to be permanent.

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ACCURACY IN PHYSICAL THERAPY

THE editorial on page 447, of the June, 1932, issue of CLINICAL MEDICINE AND SURGERY seemed to express, in behalf of physical therapeutics, a lack of scientific accuracy which tends, not only to invalidate this method of treatment, but to confirm many in their belief that it was still a sort of hit and miss affair, like condiments —according to taste.

Since the essence of any remedy is the production of certain desirable reactions, it takes on the nature of how much water will put out the fire. The answer is, enough.

The first essential is the proper use of nomenclature, to be able to state what remedy is being applied—chemical, thermal or mechanical. The second essential is the technic of how the energy shall be applied, which is a matter of choice of apparatus, of what agent must be used to produce the remedial energy (this might be called the carrier energy or vehicle) and of accessories. The third essential is the dosage.

It is perfectly possible to state with accuracy the first two essentials observed in giving a physical therapeutic treatment. The third essential cannot be given, except for the case treated, since there are so many variables, the greatest of which is the patient. Here we have to do as we do with drugs— give the bioreactions from what may be considered an average safe dose in any case; the amount which is surely too much in any case; the minimum amount which has been found, by experience, to be productive of a reaction; and the possibilities of idiosyncrasy.

Trying to be too dogmatic in these matters has led to disappointment, or even hostility. For example, what is the dose (of heat and chemical energy) for a case of bone tuberculosis, as given by heliotherapy? We have the variables of time of day; condition of the atmosphere; presence of clouds or dust; possible reflection from snow, water or sand; time of exposure; amount of skin exposed; character of the skin irradiated; state of the patient; the effect of drugs; etc. The only guide to dosage is the experience of others in like cases as to what is the minimum at which it is best to start, what are the signs denoting satisfactory progress and what are the signs of over-dosage. When, other factors being the same, we reach a state in which the time of exposure becomes a coincident with the hours of daylight, our final criterion is that enough will have been given

when the patient is well, which may mean years under treatment. We might say that subharmful treatments, in which there is a maximum bioreaction, is the optimum dosage.

While the administration of physical therapy introduces many variables, they are not notably more than those entering into drug therapy, and we have ample reason to feel sure that these agencies may now be used on a basis which approximates the scientific accuracy attributed to the employment of other remedies.

F. T. W.

X-Ray Therapy in Acne Vulgaris and Pustular Skin Affections

By C. S. Bucher, M.D., Champaign, Ill.

THE importance of x-ray therapy in acne vulgaris and pustular skin affections being recognized by dermatologists and writers on the subject, this contribution is offered in the hope of creating more interest, and thereby preventing the unnecessary scarring which we too frequently see affecting our young people.

I am of the opinion that the principle etiologic factor of acne is an endocrine disturbance, associated with infection. This opinion is based on the age of the patients so affected, the condition occurring almost exclusively during the period of puberty, at which time marked endocrine changes are in progress. Until a definite, specific etiology is discovered, the treatment will remain empiric. A suggested procedure is here offered.

Roentgen or x-ray therapy in acne vulgaris is not a specific in itself, although superior in effect to all other single therapeutic measures. The most successful results are to be obtained by x-ray therapy in conjunction with general hygiene, dietetics and medication.

A history of the mode of living, in relation to diet, habits and constipation, is important; also the duration and the previous treatment. A thorough examination, with special attention to foci of infection, should not be omitted; the teeth, tonsils, and appendix being the most frequent foci.

Treatment

A perfectly conducted and administered course of roentgen-ray therapy may yield unsatisfactory results to the radiologist, referring physician and the patient, if cooperation is not obtained.

All patients should receive definite instructions as to diet, general hygiene and attention to the bowels. They should receive a diet sheet, listing the foods to be eliminated — all rich foods, sweets, chocolates, candies, gravies, fresh pastries, white bread, soda water, condiments, tea and coffee.

When an allergic history is obtained, the foods and drugs, if any, to which the patient is susceptible should be determined and eliminated. Orris root is the most common offending drug in acne, it being the basis of most toilet and face powders.

Where large pustules are present, they should be opened but not traumatized by unnecessary pressure. Fomentations will aid in clearing the pustules. A solution of bichloride of mercury or alcohol is preferable for local medication.

Hyperkeratotic spots and comedones are best treated by applying, twice daily, a solution of salicylic acid, 40 grains to the ounce (2.6 Gm. to 32 cc.) of alcohol, to which bichloride of mercury may be added for its antiseptic properties. In 3 to 7 days, the hyperkeratotic areas will be softened and the comedones should be expressed. The salicylic acid solution should then be discontinued. Mildly astringent and antiseptic solutions or ointments are beneficial and may be used throughout the remainder of the treatment. Having completed the preliminary preparation, we are now ready to begin the x-ray treatments.

X-ray Therapy: While there are variations in the technic used by different authors, as a whole they correspond very

closely, I have obtained best results with the following:

The hair, eyebrows and untreated areas are protected with lead; the face is usually treated laterally. If the skin tolerance is unknown, one-sixteenth unit (McKee) of unfiltered rays is given at the first treatment, which dose is gradually increased to one-fourth unit at intervals of one week, providing there are no skin reactions, after which the treatments are repeated at weekly intervals. The number of exposures to x-rays required to effect a cure will vary from 8 to 18 or 20.

Lightly-filtered rays, at intervals of two weeks, will give as good, if not better, results with less likelihood of producing an erythema and with more convenience to the patient, reducing the number of treatments about one-half. This should be governed by the radiologist in charge.

Recurrences are to be expected in from 10 to 15 percent of the cases thus treated, but when recurrences do occur, a few more exposures to x-rays will usually effect a cure. A case report will illustrate this:

Case Report

Case: Miss H. B.; age, 18 years; complexion, fair; hair, light-brown; acne vulgaris of the face and back.

Diet: Elimination from the diet of such foods as candies, sweets, nuts, fresh pastries, gravies and all rich foods.

Internally, mineral oil or milk of magnesia, in quantity sufficient to produce one to two bowel movements a day.

Locally, mildly astringent and antiseptic lotions (containing bichloride of mercury, 1 to 1,000).

X-ray Therapy consisted of 37 r, to either side of the face and affected portion of the back, at weekly intervals.

Results: After the fifteenth exposure, the back was free from acne; there were, however, a few scars remaining, the face requiring two additional exposures, with no scarring.

Shortly after completing the treatment as thus outlined, she developed an acute attack of appendicitis, the appendix being removed eleven months later. During the period from her first attack to operation she was free from acute attacks of appendicitis, but had what she described as "almost constant distress in the right lower abdomen, with pain occasionally."

Operation: All abdominal vicera were normal to palpation or inspection excepting the appendix, which was removed; the pathologist reporting chronic appendicitis.

At the time of operation, she had a recurrence of acne on her chin, which responded to x-ray treatment. Chronic appendicitis, errors in the diet, and possibly the endocrines, are the causative factors requiring the large number of treatments and of the recurrences.

Chronic Pustular Affections

Chronic pustular affections of the skin, either singly or as a complication with acne vulgaris, will usually yield to the elimination of the etiologic factor and x-ray therapy; when foci of infections are the causative factors they should be removed, before x-ray treatments are begun.

Sycosis Vulgaris is the most stubborn of these affections. A well-conducted course of x-ray treatments will effect a cure, usually leaving permanent evidence of the disease having been present.

Conclusions

1.—Endocrine disturbance is a likely etiologic factor.

2.—Foci of infection should be removed.

3.—Cooperation must be obtained for the best results.

4.—Hygiene, dietetics, internal and local medication, in conjunction with x-rays, are essentials.

5.—X-rays are not indicated in the early stages.

6.—Small doses of x-rays, at weekly or biweekly intervals, are preferable to larger doses.

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Diets, Dentists and Doctors

It is difficult in some respects to indicate a dividing line between the practice of medicine and of dentistry.

Recommendations on choice of foods are frequently necessary and may be made by the dentist without any responsibility. Dietary prescription is a different matter. It is based on a careful study by the physician of many data, gathered both by laboratory and by clinical methods. The interpretation of these data and their application is the duty of the physician rather than of the dentist. But the clinical application of these facts becomes the joint duty of dentist and physician.—J. A. Marshall, D.D.S., Ph.D. of San Francisco, in J.A.M.A., Oct. 10, 1931.

CLINICAL MISCELLANY

A Practical Method for Reducing the Hazards of Encephalography

ANYONE who has performed or witnessed one, knows that the untoward reactions which may accompany and follow encephalography may become alarmingly severe and actually dangerous. It does not take many such experiences to dampen the ardor with which one may choose to make use of so valuable a procedure. It has seemed to me that a practical means of minimizing these reactions and dangers would be welcome, and I wish to present a method which, in my practice, has been successful in reducing to a minimum the manifestations of disturbed function.

I have felt that sudden marked changes in intracranial and intracisternal temperature and pressure are plausible explanations for the alarming reactions which may occur during or following the injection of the air. The temperature of the air in the average hospital room will usually range from 70 to 80°F.; whereas the intrathecal temperature will probably be at least 100°F. Clinical and experimental observations indicate the desirability of having the air which is to be introduced intraspinally, as near to intrathecal temperature as is feasible.

Perlstein[1] has demonstrated that a change of intrathecal (and especially of intracranial or intracisternal) temperature of only a few degrees, may cause profound nervous changes. Injections of small amounts of hot or cold fluids, which would ordinarily be sublethal, have been fatal to dogs in his experiments. Perlstein found it necessary, in his experimental work, to control carefully the temperature of the fluids injected, and he[2] has devised a simple apparatus for controlling their temperature. Anyone who has had any clinical experience with cisternal injections of serums and other fluids is convinced of the importance of the temperature of the fluids injected.

In my hands, the temperature of the air injected in encephalography is apparently satisfactorily controlled by the appropriate use of a warmed glass syringe, thin-walled rubber tubing, a shallow basin and a thermometer. The air is forced from the syringe through the tubing to the needle and thence to the lumbar canal. The rubber tubing is kept in a basin filled with water, the temperature of which is maintained at or about 105°F.

Other observers and my experiences have demonstrated that pressure changes are also important factors in the production of the physiologic disturbances. With a manometer connected with the cisternal cavity, I have found that, as the pressure at the medulla rises above 12 to 15 mm. of mercury, the distress of the patient increases with the pressure. On the other hand, symptoms of aberrant function are manifestly less if the pressure is maintained below 15 mm. of mercury. These observations would seem to indicate the advisability of a gradual replacement of the intracranial fluid with the air. Experience has taught me that this may be accomplished by using a 2 cc. syringe for infants and one holding 5 cc. in older children, in the following manner: When 2 or 5 cc. of spinal fluid have been obtained by gravity flow, the syringe and tubing are connected with the spinal puncture needle, and 2 or 5 cc. of the warmed air are slowly injected. This process is repeated until the operation is completed.

I feel that the application of the precautions which are described herein, should materially reduce the hazards of intrathecal air injections. In my hands, at least, the manifestations of disturbed function during and following encephalography have been distinctly decreased in number and severity.

REFERENCES

1.—Perlstein, M. A.: Personal Communication.
2.—Perlstein, M. A.: A Simple Apparatus for Controlling Temperature of Fluid During Injection. *Jour. Lab. and Clin. Med.*, 16:831 (May) 1931.

DR. ORVILLE BARBOUR,
Peoria, Illinois.

Ultraviolet-Ray Treatment of Chancroids

ULTRAVIOLET irradiation of chancroids with the quartz lamp has recently been used. I have employed this method almost exclusively, with satisfactory and gratifying results. The course of treatment and duration of the disease are considerably shortened by this method. In the majority of cases it has required from one to four irradiations, at intervals of two to four days, to produce a cure.

By this method of treatment no effect in hastening or retarding development of bubo has been noted, but after suppuration, incision and drainage, it has a marked healing effect and shortens the duration of the disease.—DR. D. P. MACGUIRE, of New York, in *Internat. J. Med. and Surg.*, Jan., 1932.

Electrolytic Therapy of Periapical Infection

ELECTROLYTIC treatment has been found definitely valuable in the case of periapical infections. Tests of a number of substances have shown that a solution of zinc-iodine was preferable to others. Cases which had repeatedly given positive bacterial cultures rapidly gave negative cultures after the institution of electrolytic therapy.—R. WERTHER, D.D.S., of Philadelphia, in *Dent. Cosmos*, Apr., 1932.

Light Rays in Dermatologic Therapy

IT is not practical to make even moderate quantities of biologically active light rays penetrate deeper than about 1 mm. The skin absorption is too marked for deeper penetration. The most suitable emission field is probably that between 3200 and 3600 Angström units.—DR. S. LOMHOLT, in *Brit. J. Dermat. and Syphil.*, Aug.-Sept., 1931.

X-Ray Treatment of Gonorrheal Complications in Males

DEEP x-ray therapy in the treatment of the various complications of gonorrhea in 119 males was studied over a period of 6½ years, with special consideration for recurrences and for comparison with untreated control groups. On the order of efficacy, x-ray therapy appears uniformly effective in the painful heel due to periosteal spur; it has a limited field of usefulness in the treatment of refractory gonorrheal joint complications, especially for the relief of pain; but in gonorrheal epididymitis, adenitis and urethritis, the results were insignificant.—DR. F. LIBERSON, of New York City, in *Radiology*, Apr., 1932.

Radiopaque Areas in Dental Roentgenograms

RADIOPAQUE areas often appear in dental roentgenograms which appear to be within or on the surface of the mandible. In one case cited, a dense area within the body of the mandible near the inferior border appeared to be a bone whorl. Further investigation, however, revealed sublingual calculus. Careful examination of the floor of the mouth should be made, especially in cases in which shadows appear on dental roentgenograms of the mandible that cannot be interpreted definitely.—DR. B. S. GARDNER and E. C. STAFNE, of the Mayo Clinic, in *Dent. Cosmos*, Jan., 1932.

Massage

THE first rules in massage are: (1) Not to hurt the part; (2) not to excite the patient. To produce pain is not only to cause trauma of tissues, but to set up defense contractures of the muscles, which defeat the chief objects of massage, that is, to express lymph and exudate from the tissue by mechanical pressure and to induce reflex vasomotor reactions. — DR. TOM A. WILLIAMS, of Miami Beach, Flor., in *Med. Herald, Phys. Therap. & Endocrine Survey*, Nov., 1931.

Mild Radium Therapy (Spas)

THE radioactivity of mineral waters is due, almost entirely, to the presence of radon in the water itself and the gas which generally accompanies the flow of water from the springs.

Good results continue to be obtained in patients who visit spas. This fact remains, whether we give regime, psychology or radioactivity or their combination the credit.

We should not condemn artificially im-

pregnated radioactive waters and mild radium packs as being of little value, because of lack of evidence. Controlled clinical observations are required until we are satisfied or otherwise with our own results or those from an authoritative source.—DR. V. BORLAND, in *Brit. J. Physic. Med.*, Feb., 1932.

RECENT ABSTRACTS

Grenz-Ray Therapy

From a study of the world literature and from his own experience with x-rays of long wave length, Dr. A. Reisner, of Frankfurt-on-Main, Germany, in *Radiology*, Apr., 1932, sums up the present situation in the field of grenz-ray therapy as follows:

1.—The basis for successful grenz-ray therapy is exact dosage.

2.—For the treatment of superficial skin diseases, grenz-ray therapy offers a valuable addition to our therapeutic armamentarium.

3.—While the therapeutic effect is approximately the same as that of ordinary roentgen rays, sometimes it seems slightly superior.

4.—The advantage lies in the fact that the deeper layers of tissue are well protected and that the therapeutic dose can apparently be administered without danger of immediate or delayed injuries.

5.—In the treatment of local disease, the value of general body exposures to grenz rays is a very much debated problem.

6.—A final judgment as to the effect of grenz rays on internal diseases cannot be passed at the present, but further investigations in a large number of cases are necessary and seem to be worth the effort.

7.—Injuries following grenz-ray therapy can apparently be avoided if very soft rays are used and if the smallest dose required for the therapeutic result is administered.

Uses of Liquid Oxygen

In *Brit. J. Phys. Med.*, Aug., 1931, Dr. H. G. Irvine, of the Minnesota Medical School, reports that liquid oxygen is now made commercially in one or more plants in most large cities and can be purchased for approximately $1.50 a liter. This, together with the fact that it can be easily kept for several days in the ordinary thermos bottle or transported in a metal one, makes it a practical agent.

It offers a practically sure and painless method of removal of warts. For the patient with a large number of these unsightly lesions, it is both quicker and cheaper than any other equally certain method.

It can be used more quickly and less painfully than the electric needle in the removal of pigmented, hairy and papillomatous nevi. This makes it of special value in working with children.

It is more easily handled and less painful in the treatment of vascular nevi than carbon dioxide snow.

It is of decided value as a destructive agent in treating seborrheic and senile keratoses, lupus vulgaris, X-ray keratoses and pyogenic granulomata.

The cosmetic results following its use as a destructive agent are excellent.

Applications are made with an ordinary swab, of suitable size, on a wooden applicator, using just enough of the liquid (without pressure) to freeze the lesion, and then applying, from time to time, enough more to keep it frozen for from one to four minutes.

Electrosurgery in Hemorrhoids

In *Am. Med.*, (special supplement) Jan. 1932, Dr. G. E. Deering, of Worcester, Mass., describes his method of electrosurgery of hemorrhoids, which he terms basal coagulation.

This method is based on the fact that, in diathermy, the greatest amount of heat is developed at the point of greatest resistance. If the point of greatest resistance can be made the base of the hemorrhoidal mass, and the amount of skin or mucous membrane included is just enough to cover this mass and hold it tight enough so that it will not slip beneath the skin, and the skin can be separated by some insulating material from the tissue to be removed, and the current applied to the separated tissue, the heat will be concentrated in the narrowest portion, and that part about it will be coagulated. Now if this whole proceeding can be performed in a few seconds and the hemorrhoid cut away with the acusector or scalpel with no bleeding, the operation will be very satisfactory to the surgeon and pleasing to the patient. This can be done. Three instruments are necessary—

1.—First an insulated nasal snare of fine music wire;

2.—A pair of rather small thumb forceps;

3.—A hemostat or some other instrument with insulated handles for grasping the hemorrhoid.

Technic. The wire of the snare, in which is a rather small loop, is passed over the hemorrhoidal tissue and pressed firmly down. The posterior part of the loop is held against the skin with the thumb forceps and the snare is drawn home. Pressure is maintained on the loop end of the instrument and on the distal end of the snare until the wire is tight enough to hold the hemorrhoid firmly at the base. The thumb forceps is removed, the skin or mucous membrane is dried and dry gauze, or better still, white wool yarn, water proofed with lanolin and sterilized, is wrapped closely around the hemorrhoid at the wire loop. When the hemorrhoid is separated from the skin it is grasped with the current applicator, in this case the pair of splinter forceps, and the current is

applied by laying the desiccating needle against the forceps applicator. When coagulation is complete, the forceps applicator is removed and the desiccating needle placed against any exposed part of the metal snare and the cutting current turned on and the hemorrhoid mass removed, or if preferred the cutting may be performed with the acusector, scissors or scalpel.

Radium Treatment of Breast Cancer

In *J.A.M.A.*, Mar. 5, 1932, Dr. A. Soiland, of Los Angeles, expresses the opinion that the most promising and effective method of radium treatment of breast cancer is the interstitial implantation of platinum-covered radium element needles, which offers all the benefit of close radiation without the disagreeable ulcerative reaction which accompanied earlier attempts to treat cancer below the surface with radium needles of low-filter type.

The entire tumor mass is surrounded by implanted platinum-covered needles, 50 or more being necessary, each of which contains from 1 to 2 mg. of radium. The correct placing of the needles requires the greatest care so that every individual cancer cell may be killed and other susceptible tissues spared. The needles are left in place for from 7 to 10 days. The results obtained are stated to be very encouraging and the most promising and effective at the present time.

"Cold Quartz" Ultraviolet Orificial Irradiation

In *Arch. Phys. Therap., X-Ray, Radium*, Feb. 1932, Dr. O. B. Nugent, of Chicago, reports that, in the Chicago Eye, Ear, Nose and Throat Hospital, they have treated, with the cold-quartz orificial tube, 1,028 patients during the past five months. This involved 2,572 treatments, or an average of 2½ treatments per patient. The range of treatments was from one to seventeen. The following table shows the number of patients treated in the various departments:

Mouth	14
Eye (Exclusive of all corneal ulcers, which are treated with the Birch-Hirshfeld Radiant Lamp)	101
Ear	380
Nose	432
Throat (Including treatments to the larynx)	101

Many of these patients were treated with the cold-quartz only, and many received other treatments at the same time. The results were, on the whole, much more gratifying than were expected. Only 8 cases were unsatisfactory; of these, 6 patients should never have been treated with ultraviolet rays, as their condition was not such as would respond to this treatment.

In some cases there was only a notation that the condition had improved, the patient not having returned for further and complete treatment. In a fair percentage of these cases the assumption is justified that the condition was cured. There are some, especially those who received only one treatment, of whom there is no account as to the results; but in those cases followed through the entire course, the results were very gratifying.

Exercises for Fractured Patella

In the aftercare of patients operated upon for fractured patella, Dr. B. I. Golden, of Eklins, W. Va., reports in *Internat. J. Med & Surg.*, Jan., 1932, that he finds physicial therapy of great value in restoring patellar function.

When the patient has discarded crutches and is walking, certain leg exercises are taught. The two that are most valuable are:

1.—Placing the heels together and squatting.

2.—Lying flat in bed, raising the legs alternately at right angles to the body and then allowing the leg to flex on the thigh.

The muscles must first relax under fatigue, which usually takes from 5 to 10 minutes, and it is not until after this period that they are really doing anything to restore the knee function. Unless this is explained to patients, little results will be accomplished by the home work.

BOOKS

Sicard and Forestier: Lipiodol in Diagnosis and Treatment

THE USE OF LIPIODOL IN DIAGNOSIS AND TREATMENT. A Clinical and Radiological Survey. *By J. A. Sicard, Late Professor in the Faculty of Medicine, Paris, and Physician at the Necker Hospital; and J. Forestier (Aix-Les-Bains). London and New York: Humphrey Milford, Oxford University Press.* 1932. *Price* $4.00.

It is over ten years since the authors introduced the use of injections of iodized oil as a means of radiographic diagnosis, especially in bronchial and spinal lesions; since then the method has been extended to many other regions of the body by the authors or by others, and lipiodol has also been used therapeutically.

This volume is a record of the authors' practical experience of the use of lipiodol injections in both diagnosis and treatment, and contains statistics of results.

The diagnostic results obtained from lipiodol injections in different regions of the body are not all on a par. In the authors' hands the method has been most successful when applied to the central nervous system and to the respiratory tract; also utero-tubal exploration and the mapping out of the accessory nasal sinuses are advances of no mean importance.

The book is divided into two main portions — lipiodiagnosis and lipiotherapy — and under each the applications to the various regions are described. There is a very comprehensive bibliography of references at the end. The typography is excellent.

THE · SEMINAR

[NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted. Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.]

PROBLEM NO. 7 (MEDICAL)

Submitted by Dr. C. M. Tinsman, Adin, Calif.

(See CLIN. MED. AND SURG., July, 1932, p. 532)

Recapitulation: A woman 47 years old, with no family history of cancer and with four healthy children, had measles while pregnant, aborted, and three months later had a severe attack of influenza, after which she had from two to ten watery stools daily and was relieved (2 to 6 stools daily) only by diet and rest.

In July, 1931, she was in bed because she felt dizzy and fainted if she got up. Her skin was ashy-yellow; pulse, 98; temperature, 97.5°F.; systolic blood pressure, 110 mm.; hemoglobin, 30 percent (Tallquist).

Treated with iron and arsenic, intravenously, and liver extract and copper by mouth, she improved so much that she was able to make a three-weeks' trip in March, 1932, though her bowels were still loose and her skin not normal.

On May 1, 1932, her pulse, was 76; temperature, 98.6°F.; systolic blood pressure, 125 mm.; hemoglobin, 65 percent. Her bowels moved 6 times in 24 hours—light-yellow, oily stools; her skin and sclerae were lemon-colored; no palpable enlargement of the liver; some gastric distress after eating carelessly; comfortable when at rest in bed.

Requirements: (1) What further information is required for diagnosis? (2) Give tentative diagnosis on this history; (3) Suggest treatment.

DISCUSSION BY DR. EMMET KEATING, CHICAGO

Any patient who has had a severe diarrhea over a long period of time should have a roentgenogram made, to determine whether or not the colon has suffered an amount of destruction that is beyond repair.

The red and white blood-cell count and differential count are not given in the description of this case, and are necessary in making a diagnosis.

All cases of chronic diarrhea should have a careful examination of the stool, made by a competent bacteriologist. If the offending organism is found, a vaccine cultivated from the stool is, in many cases, very effective.

If the stool is found to be highly acid, the patient should be instructed to take a 5-percent sodium bicarbonate solution enema, of a pint to a quart, once or twice daily. In taking this enema, the Trendelenburg position should be maintained. A board with one end on the floor, the other resting on an object sufficiently high, is readily provided. A pillow on the floor adds to the patient's comfort. This enema should be given slowly and the patient should, if possible, remain in the Trendelenburg position for from ten to twenty minutes. This treatment alone will frequently reduce the number of stools 50 percent.

In patients presenting the yellow tint of the skin, so common to pernicious anemia, the possibility of yellow atrophy of the liver should be kept in mind.

DISCUSSION BY DR. EMIL C. JUNGER, SOLDIER, IA.

It is difficult to estimate this case without a report of a complete blood study. A complete and painstaking examination of the stool would also be helpful.

This woman has suffered with colitis for

a long time, which may account for all the symptoms. Probably the liver has been flooded with incomplete and toxic products of digestion until it is crippled, giving rise to "dyspepsia." The gall-bladder may also be chronically infected.

Fat globules in the stool should suggest a careful examination of the pancreas, with a suspicion of malignant disease always in mind.

If, after a real study of this case, medical methods fail, an exploratory laparotomy may be indicated, during which, if malignant neoplasms are found, they can be removed, provided they are still in the operable stage. If the gall-bladder is the seat of severe, chronic inflammation, cholecystectomy should be performed.

Iron, arsenic, copper and liver extract are standard remedies for anemia, but it seems rather useless to give them until we discover the *cause* of that condition. If this woman's disease is not malignant, it looks like the result of a chronic infection, which might be removed by medical or surgical means.

Discussion by Dr. Dietrich Klemptner, Chicago

A few more clinical and laboratory facts are desirable in this case. What is the patient's state of nutrition? Did she lose or gain weight? Are there any neurologic findings — sensory disturbance, reflexes, Romberg's sign?

We want to know more about the blood. Of the red cells, the number, the shape (anisocytosis, poikilocytosis), size (microcytes, macrocytes), coloring (hypochromia, hyperchromia); also the icterus index.

We would like to know the degree of acidity of the gastric juice, following an Ewald breakfast or a histamin injection.

An examination of the stool would probably be proper, looking for pus, blood, fats or fatty acids, eggs of tapeworms and other parasites; and also a proctoscopic examination, with a cultural and microscopic examination of the swab. What did the Wassermann test show?

What are the diagnostic possibilities? The patient is a woman of 47, ill for 13 years, complaining of weakness and presenting, as objective signs, jaundice, diarrhea of yellowish, oily stools and a low hemoglobin content of the blood, that improved following the use of liver.

Hypertrophic cirrhosis of the liver and hemolytic icterus are ruled out by the absence of a large liver and a splenic tumor; cancer of the pancreas, by the duration of the illness and the patency of the common duct; for Addison's disease, the blood pressure is too high and there is no pigmentation; Biermer's anemia is compatible with the history and the signs, but cannot be definitely diagnosed without additional laboratory data. Lately some microcytic forms of primary anemia in females have been described, that show no neurologic signs and are of a relatively benign and chronic nature. Gastric anacidity and metrorrhagias are mentioned as etiologic factors.

The diarrhea may be gastrogenous, due to anacidity, but it may be a symptom of a mild form of dysentery, bacillary or amebic. And there are reports of cases of chronic dysentery in the literature that, in the course of time, were followed by Biermer's anemia and were possibly responsible for that condition. I should, therefore, consider a primary anemia of some sort, and would demand that dysentery be ruled out by proctoscopy and laboratory tests.

The treatment is determined by the diagnosis. For Biermer's anemia, stomach and liver are indicated, the latter given by mouth or subcutaneously. The tendency is now to give large doses of liver and not to discontinue it, even if the blood findings are within the norm, until the other clinical signs, including the nerve signs, show improvement. If bacillary dysentery should be present, complete recovery has been reported from the use of an autogenous vaccine.

Discussion by Dr. Herman J. Kooiker, Milaca, Minn.

Because of the sudden onset of the diarrhea following the influenzal attack, the origin may be considered to be infectious in nature. At first, with the thin, watery stools, an extensive catarrhal inflammation of the gastro-intestinal tract, with active peristalsis, dominated the picture. As time went on and no treatment was of any avail, except dieting and rest, there comes the suggestion of something more and, with the presence of fat in the stools, the attention is turned to the pancreas.

The pancreatic juice contains enzymes which aid in the digestion of proteins, fats and carbohydrates. The presence of fat in

the stool therefore indicates pancreatic insufficiency, in this respect at least. Because rest brings about less demand for food and, as Walther has shown that the quantity and the character of the pancreatic juice varies with the character of the food, there is here a good explanation for the betterment under the rest and diet regime, on the basis of a pancreatic insufficiency.

From the long duration of the trouble and the absence of fever, I feel that tuberculosis of the intestine or mesenteric glands may be ruled out.

Although the condition is probably infectious in origin, the history lacks the picture of acute pancreatitis. On the basis of the symptoms presented, the chronic form is more probable. My diagnosis, therefore, is *chronic interstitial pancreatitis*, due to an ascending infection from the duodenum. From this the low hemoglobin can be fully accounted for, as well as the yellow skin.

Careful blood studies should be made, of course, inasmuch as there are considerable improvement following the liver therapy. The fact that the skin remained as yellow as prior to treatment, indicates that the blood, *per se*, is not diseased. It is known that, in some cases of pancreatic insufficiency, with or without glycosuria, there is a disturbance in iron metabolism. The yellow skin points to this type of disturbance, which, if severe, produces degeneration of all types of body tissue, accounting for the dizziness and weakness on the basis of myocardial degeneration. The liver, not being palpable, is probably atrophied and cirrhotic.

Since this trouble seems to be of infectious origin, a polyvalent bacteriophage of the common pathogenic organisms of the intestinal tract should be given a thorough trial. The contents of a 2 cc. ampule, diluted with five teaspoonfuls of water and given on an empty stomach in the morning and at bed time should be decidedly helpful.

To supply the insufficiency of the pancreatic secretion, extracts of the pancreas should be given in large enough doses to produce enough effect to eliminate the free fat in the stools. In a patient I have had under treatment for nearly two years, Cellasin tablets have given more relief from the distress than the pancreatic extract tablets, and have also controlled the diarrhea fairly well. When my patient takes the two in combination she feels well.

Discussion by Dr. James H. Hutton, Chicago

I should like to know upon what findings Dr. Tinsman based his diagnosis of pernicious anemia. I should also like to know what the blood picture is now; whether there is any glossitis or signs of spinal cord changes; what an analysis of the gastric contents shows; whether there is any pigmentation of the skin or mucosa; whether there are any ova or parasites or an abnormal amount of undigested fat in the stools; and whether there has been any noticeable loss of weight.

The history makes one think of a condition simulating sprue, a number of which cases have been reported. One also wonders about intestinal parasites and colitis.

Treatment should wait on the diagnosis. If neither pernicious anemia nor intestinal parasites is found, and if the blood calcium is low and there is much undigested fat in the stools, one should consider the administration of calcium by mouth and parathyroid hormone subcutaneously.

Discussion by Dr. J. R. Smith, Warsaw, Mo.

My diagnosis of this case is intestinal influenza, with probable occlusion of the hepatic duct.

I should have given this patient, at the start, 4 to 6 tablets of triple sulphocarbolates (sod. sulphocarb., 3½ grains; calc. sulphocarb., 1 grain; zinc sulphocarb., ½ grain; bismuth subsalicylate, 1/6 grain), dissolved in a glass of water, every 3 to 6 hours until the diarrhea was controlled, and followed this with 1 to 3 tablets of triple arsenates with nuclein (strych. arsenate, 1/120 grain; quinine ars., 1/60 grain; iron ars., 1/60 grain; nuclein, 4 min.), three times a day, to hasten convalescence.

Discussion by Dr. I. L. Sherry, Chicago

Before attempting a diagnosis in this case, I should require considerably more information than Dr. Tinsman gives us in his report. I should want to know the findings of a stool examination, Wassermann test, blood count (including red, white and differential), and chest examination.

If it is really necessary to make a diagnosis only on the findings reported in this article, then I should suggest, tentatively,

amebic dysentery or *ulcerative* or *infectious colitis*.

A diagnosis of pernicious anemia cannot be made on an "ashy-yellow" complexion and a hemoglobin estimation by the Tallquist scale.

A diagnosis of measles, in a woman of 33 who has had "most of the diseases of childhood," resulting in the premature termination of pregnancy, is also subject to critical investigation.

Closing Discussion by Dr. Geo. B. Lake, Chicago

Practically all discussants of this problem unite in calling attention to the fact that the information contained in the case history is wholly inadequate to form the basis of a sound diagnosis which would point the way to intelligent treatment. In this I agree with them fully.

It is difficult for physicians, who have not had personal experience of country practice, to realize the handicaps under which the medical men in rural districts labor. Dr. Tinsman is practicing in a hamlet of only 200 inhabitants, in the extreme northeast corner of California, many miles from a city where the laboratory facilities, which many of us look upon as indispensable in studying our cases, are available, and with only one other physician at hand for consultation. Unless he is a trained laboratory worker and has a considerable equipment, most of the studies recommended are out of his reach, and he must go ahead, as best he can, on the basis of such examinations as he is able to make.

I still feel that the excellent and thoughtful discussions of this problem are of great value, because they call the attention of all our readers to the studies which *should* be made in in a case like this. If Dr. Tinsman is unable to make them, it might be well to arrange for having his patient transferred to the nearest hospital or clinic where they can be carried out.

All of the tests and examinations mentioned in the discussions are important and should be made as soon as practicable, but two general studies—those of the blood and stools—are so vital, it seems to me, that an intelligent diagnosis cannot be made without them; but I will make some tentative suggestions, on the basis of just what Dr. Tinsman has furnished, though there is more information that he might have given us—weight, nerve symptoms, blood in the stools, etc.

While dysentery and intestinal parasitosis are both probable causes of the symptoms reported, the most likely diagnosis appears to be *chronic pancreatic insufficiency*, which may well have resulted from unrecognized pancreatitis following an infection in some way connected with the attack of influenza. There are several laboratory examinations which can be made to verify or disprove this assumption; but there is one which Dr. Tinsman can make without difficulty.—**Lowei's test.**

The technic of this procedure is as follows: Three (3) drops of a 1:1,000 solution of epinephrin chloride are dropped into the conjunctival sac of one eye, followed, after 5 minutes, by 3 more drops. The untreated eye acts as a control. In the presence of **pancreatic insufficiency,** *diabetes and hyperthyroidism*, the pupil of the treated eye will dilate.

If this test is positive, Dr. Kooiker's suggestions as to treatment may well be tried. If not, and if hospital or clinic treatment is impracticable, it would be worth while to experiment with the intestinal bacteriophage, by mouth, or a modified van Cott's vaccine (sepsis bacterin), hypodermically, or both, one after the other. Leukocyte stimulation by the injection of non-specific proteins (Lactigen, nuclein) might also be tried.

I hope that, if Dr. Tinsman follows out any of the suggestions in these discussions, he will give us a further report of the results of examinations and treatment.

Problem No. 9 (Medical) Submitted by Dr. F. H. Rhoades, Hanover, Kans.

The patient is a robust German girl, 18 years old, 5 feet 7 inches tall and weighing 137 pounds, who has never been ill, looks the picture of health and is very strong, having done the heaviest kinds of farm work for a number of years.

She began menstruating at 13 years and was regular until September, 1930, since when there has been no sign of flow. Her mother had some menstrual irregularity, but nothing like this.

For the past two years there has been an enlargement of the thyroid; and during April, May and June, 1931, the pulse

(Continued on page 682)

A LIVING FOR THE DOCTOR

DOCTORS OF *MEDICINE*

IN this generation, "doctors" are as thick as flies around a molasses barrel. Besides doctors of Dental Surgery and Osteopathy and Chiropractic, we have doctors of Naprapathy, Sanitology, Naturopathy and a number of other pathies, as well as of Optics, Music, prize fighting and heaven knows what else. And then, it is now the fashion to call ministers of all denominations and grades of intelligence, "Doctor."

But in all this welter of titles which used to indicate years of profound study and the possession of deep knowledge, there is one group in which the title means just that—the Doctors of Medicine.

A good deal of dissatisfaction, and even alarm, has been expressed by members of the medical profession because so many patients are employing the services of the "bastards of Asklepios," but if that is true—as it seems to be—we have no one to blame for the condition but ourselves. If we have missed our opportunity to help people, by reason of therapeutic nihilism, laziness or misapprehension of our mission in the world, we have no sound reason to complain because someone else has stepped in to take our places in the confidence of the people who, for generations, have expected doctors to give them *medicine*, and have also expected that the medicine would cure or relieve them—and it generally did so.

Years ago, when surgery was in its infancy and physical therapy, dietetics and several of the therapeutic resources, upon which we now so largely depend, were still in the womb of the future, physicians *knew their drugs* (such as they were) and knew just what to expect when they administered or prescribed them. In fact, many went into the field or the garden, gathered the leaves, roots or berries, and personally extracted the medicaments from them—crude preparations, to be sure, but mixed, as they were, with knowledge of their characteristics and powers, they produced gratifying results.

Then came the era when surgery was King (and that dynasty is not yet past) and men in high places in the councils of Medicine, possessed of many facts and statistics, but little of the *truth*, declared that drugs were worthless in the treatment of disease and that the function of the physician was merely to stand by and record the sufferings of his patients in a highly "scientific" manner, while nurses made them as comfortable as possible and Nature cured their maladies—or didn't, in which latter case there might be an interesting autopsy.

Surgery has done wonders in the amelioration of human suffering and the saving of lives—but in many states osteopaths are permitted to perform operations. Physical therapy, dietotherapy, climatotherapy and other measures have gained a place in the scheme of things from which no one could or *would* dislodge them—but all the twilight zoners are permitted to employ these methods in their practice.

The only field in which the physician now has unique powers and privileges is in the administration of drugs for the treatment of disease; and, unfortunately, too few Doctors of Medicine have any accurate and comprehensive knowledge of the one branch of the science and art of healing in which they have no rivals.

A sound and workable understanding of the powers and properties of drugs can be made an important factor in the doctor's financial success. The man who knows, in detail, a large number of medicines, so that he can accurately select those which are

indicated in every case that comes under his notice, will meet with such success in the handling of his patients that his fame will be spread abroad in the land and his hours of consultation will be filled days in advance.

Accurate and complete diagnoses are fine—indispensable; but what does it profit a patient if his physician knows exactly what ails him, but has no clear-cut idea of what to do about it?

Here is a suggestion for those doctors who are not so busy as they would like to be or who have serious difficulty in collecting the kind of a living to which they feel that they are entitled:

Set aside a half-hour to an hour *every day*, for six months to a year or more, and spend it in a sincere and diligent study of drugs. Begin with the older ones—those that are prescribed, more or less carelessly, every day. Find out *all* the things they will do, and then *watch a few patients to see that they do them*. That will breed confidence. Then study all the newer preparations and ways of administering them and try these, alert to note the results obtained and the reactions of the patients. Almost every physician is now aware that haliver oil will accomplish practically all the good results we have long expected from cod-liver oil, and is much more satisfactory to most patients. But how many are familiar with the full potentialities of mercury or realize that sodium bicarbonate, administered over long periods, may be dangerous, and that there are now preparations (like Calsoma) that will neutralize gastric acidity without alkalinizing the blood, or others, (like Citro Soda) that will relieve systemic acidity without upsetting the chemistry of the stomach.

When one has brushed up one's knowledge of the older drugs in their newer forms, so that he can use them intelligently and confidently, a broad and deep study of the newer remedies should be undertaken, beginning, perhaps, with the more recent barbiturates — Nembutal, Amytal, Dial, Neonal, etc.—their specific actions and indications (for, in general, they cannot be used interchangeably with complete success), and following that by delving into the arsenicals (arsphenamines, cacodylates, acetarsone, etc.), mercurials (Metaphen, Salyrgan, etc.) and the local anesthetics which are now available (Butyn, benzocaine, Butesin, etc.). Then one can take up the dyes (acriflavine, the pyridine preparations, etc.), the serums, vaccines, bacteriophages, antiviruses and the non-specific leukocyte stimulators — Lactigen, nuclein, Activin, Omnadine and hydrochloric acid administered intravenously. The field is immense and fascinating and such study, if wisely applied, will begin to show financial, as well as professional, results almost from the start.

It is not sufficient to study the textbooks on the subject (though they contain a wealth of "pay-dirt" which most physicians have scarcely mined at all), because the research chemists are working at such a rate and to such therapeutic purpose that a book, which was complete at the time it was written, will be, to some extent, behind the times before it can be printed, bound and distributed to its public.

The physician who wants to be sure he is *earning* the living he craves must supplement his textbook studies by the *regular perusal* (not merely desultory skimming) of two or three good, sound, progressive and practical medical journals, watching for information regarding the new drugs and filing it for future reference and study. This applies to those whose work lies in one or another of the various specialties, but with special force to the internist and the general practitioner.

None of these suggestions should be interpreted to mean that the surgeon or those who are expert in the employment of physical methods of treatment should, in any degree, give these up or slight them. In treating the sick we need every assistance which we can bring to our own aid and should be alert to perfect our knowledge and skill in the application of every possible curative resource. The danger is that the recent multiplicity of non-medicinal therapeutic agencies will blind us to the fact that, in our capacity as healers of the sick (as distinguished from our work in preventive medicine and hygiene), drugs are our oldest, most reliable and most universally applicable expedients, in the application of which we, as Doctors of Medicine, stand alone and unassailable.

G. B. L.

Detail Work in a Doctor's Office

By Kate Keenly, New York City

A PHYSICIAN, in speaking of a "system" which he had had installed in his office at a cost of a thousand dollars, said that the system was worth what it cost him because it showed him what he wanted to know about his business.

Of expensive, copyrighted systems, there are many. For a system which is especially suitable to the third year of a financial depression, the following equipment may be used.

1.—A day-book, showing each day's charges and appointments.

2.—A ledger, showing individual accounts.

3.—A telephone register, showing full name and address of each patient; home telephone number; business telephone number; also any other information which might be needed in either writing or telephoning to a patient, a colleague, a hospital or a salesman.

4.—A "tickler," showing details which require attention, and for the filing of miscellaneous useful and statistical data.

The simplest textbook on double-entry bookkeeping is Beach's "Twenty Twenty-Minute Lessons in Bookkeeping." The book can be read in a few hours. It ought to be obtainable in a public library.

The "Tickler"

To provide for the accurate care of details, a "tickler" is invaluable. Few persons can trust their memory absolutely. An inexpensive filing box, a guide card for each month; a set of 31 guide cards for days of a month and a stock of a few hundred 5x3 inch index cards, will be required.

If an important bill is payable on the 21st, make a note of it on an index card and place it under 21. For an operation to be taken care of on the 24th, make out an index card and place it under 24. All cards should be filed back of the guide card. Looking at the file placed before you, the index card will come after the guide card. *No deviation must ever be made from any rule once established in a filing system, except when the entire system is to be reorganized.*

For the undated, statistical part of the "tickler," any kind of inexpensive 5x3 guide cards may be used. They should be in alphabetic order, in the back part of the filing box. Back of the first guide card, marked "Appendicitis," may be filed individual cards giving statistical data.

Back of a guide card marked "Operations to be Done" may be filed any memo, as follows:

Tonsillectomy

(Date) Promised Mrs. Esther Cohen
372 Third Ave., 2nd fl. rear
Her son Jacob; age 9

Other statistical data may be indexed on guide cards and kept in the back part of the useful "tickler"; but a guide card should be made out for every subject. Without a guide card, the index card would be buried—and probably forgotten.

A calendar may be used as a tickler, though the space will probably prove inadequate. Calendars with pages gummed at the top are suitable only for offices where it is not deemed essential to keep any permanent records; calendars with rods are a trifle better. A diary may satisfactorily be used as a date tickler, the entries being made in the diary in advance, of course. If, on August 1, Mr. A. B. Cole promises to send a check for $100 on September 15, the following entry should be made on the diary page marked "September 15":

A. B. Cole promised on August 1
to send check for $100 on September 15.

Should Mr. Cole say on September 15 that he will be unable to pay until September 30, the data may be transferred in the diary to September 30.

A diary, however, can not be made as informing as a tickler. In an office with many details, a well planned tickler is very dependable. However, an overcrowded card file would be a nuisance, for the cards would be difficult to handle, and sometimes stick together. If the cards run about 100 to an inch, there should be 1¼ or 1½ inch of filing space in the box for each 100 cards.

In ordering, a 5x3 card means one thing to one manufacturer, and something else

to another. To Remington Rand, Inc., a 5x3 card means one which is 5 inches wide and 3 inches high. To some other dealers, the term "5x3" means a card 3 inches wide and 5 inches high.

Telephone

When the secretary knows that her employer can not promptly keep an appointment, persons having appointments should be advised by telephone and a later hour suggested. This service can be rendered only if the secretary has a complete record immediately available.

If a patient lives in a private dwelling, "Information" of the telephone company will give the telephone number, provided it is not a private wire. The telephone number of a person living in an apartment house may be found by looking under "Apartments" in the telephone directory. But, if the person's only given address were 120 Broadway (which is a large office building in New York City), a more uncertain situation is met with. "Information" would tell the inquiring secretary that the number of the superintendent's office is Rector 2-9700. Inquiry of that number would elicit the courteous and cooperative reply that the superintendent keeps a record of all persons in the building who register at the office, but that many do not register at all. If the person has not registered, the superintendent is unable to render any service.

When a stranger telephones to the doctor's office and asks for an appointment, it may become very important, later, to be able to telephone to the person. These new patients usually willingly give their address and telephone number, if the reason is stated that the office would telephone in case the doctor were called away by an emergency, although such delays seldom occur.

Collection of Office Fees by the Secretary

The secretary in the office of a physician in a large, first-class hotel, gives the following:

Her desk is near the door in the waiting room. When a patient is leaving the consultation room, the doctor rings the secretary's bell with two short rings, this being the signal for her to collect the fee when the patient reaches the waiting room. If the patient does not ask her what the fee is, the secretary says, "Will you settle for your visit now? The office consultation fee is $5."

If the patient says, "I will send you a check," the secretary replies, "It will be better to pay now, as charging entails extra bookkeeping."

If the patient answers, 'I haven't my check book with me," the secretary, carrying out the doctor's standing instructions, replies, "May I offer you a blank check?" at the same time handing the patient the blank check.

The doctor has further instructed the secretary to accept $3 in full settlement of the office visit, in preference to a promise to make a remittance later for $5.

Probably some other formula might also be usable, such as, "The doctor's minimum fee is $3 (or whatever the minimum amount is). He makes this minimum charge only in a few cases, and never makes it except when the visit is paid for each time and there is no work of bookkeeping involved."

Photographs

Photographs are of outstanding importance to doctors who write articles or present cases before medical societies. All photographs should be marked at once, and filed.

A specialist in New York City had had a very remarkable result in a carcicoma case, which he had photographed before instituting treatment. Several years after, he asked his secretary for the early photographs, and then returned them to her. While the returned photographs were still in her hand, both the door bell and the telephone rang. Hastening to take care of both calls, she laid the photographs upon a stack of manilla envelopes containing reprints to be mailed. A porter, who had been previously asked to take the stack to the post office, entered the office and carried out both reprints and photographs. When, later, the mistake was realized in the doctor's office, the post office was unable to render any help. This incident illustrates the importance of never laying anything down where it should not be placed.

I know another surgeon whose secretary did not "believe in marking things up." The surgeon moved his offices. His thousands of papers, clippings, notes and photographs were gathered into small

piles, each pile carefully covered with heavy wrapping paper and neatly tied up, without the contents being indexed, either on the wrapper or otherwise. The doctor, who at the time was delivering a course of lectures, was deprived of adequate reference to his lecture material at a time when he needed it most.

School and the Sick Child

The doctor is often able to obtain excellent cooperation from the public schools, by the use of a card like this:

Public School No. 37:—

Morris Cohen is under my treatment for a condition of his spine and should avoid carrying his books to and from school, on account of their weight. Could you kindly supply him two sets of books, one set to be retained by him at home, for his home work, and the other set to be kept at school? If you can kindly make this special provision for him it will be an important service in his behalf.

Sincerely yours,

.....M.D.

In dealing with a sick child, the definite question often arises as to whether the child's necessary education shall be neglected, or whether his physical condition shall be neglected through lack of treatment. The problem is sometimes quickly solved by the doctor's requesting the school to excuse the child from school for needed treatment, and his asking the school for such kind help as they may be able to extend to the child in his increased home work.

Professional Privacy

Should the secretary's desk and typewriter be so placed that any outsider may approach and look at a private letter being typed, the only solution may be to twist the roller back, and arise; or to be prepared at any time to close the desk and do something else.

Occasionally there are persons who take a seat as near as possible to the closed door of the doctor's consultation room. If possible, therefore, no chairs should be placed within hearing distance of the consultation room. If any patient innocently and unintentionally were to overhear a confidential remark, there would be a well-founded feeling that the office should take better care of professional confidences.

A telephone inquiry for professional information, from some inquirer not known to the office, is best handled by asking for the telephone number, and saying that you will call back.

A New York surgeon, who was an extensive writer, was called up by some one who said that he was "Dr. So-and-So," giving what purported to be a full name. The surgeon answered his apparently professional questions in detail. Later, however, a reference to the medical directory disclosed no such name. The surgeon adopted the practice thereafter of requiring inquiries to be made in writing.

Temperature of the Examining Room

Usually doctors have thermometers in the waiting room, the consultation room and the examining room. In very cold weather it is important to note the temperature before the office hours begin. When the doctor has an appointment with a very sick or a very aged patient, and will have to make a thorough physical examination, his assistant should endeavor to have the examining room at the temperature which the doctor prefers for such examinations. The discomfort of a chilly office in severe weather may be somewhat lessened by the use of electric heaters, although the process is slow. A comfortable temperature in the examining room in cold weather is an indispensable consideration in detail work in a doctor's office.

The Need of System

Whatever routine procedures in detailed clerical work are adopted, in the end it will pay to follow them invariably, until or unless some better method is found. To make carbon copies of "important letters" only, will eventually prove ineffectual, for a correspondence which may appear to be unimportant at first may later prove to be very important. The duty of taking a new patient's full name, address and telephone number should be definitely assigned to some one assistant. If telephone messages are to be recorded in a book, as a permanent record, an occasional omission may result in the loss of a private wire number or some other needed information. System requires that a detail shall be taken care of in the same manner each time.

NOTES AND ABSTRACTS

MY CODE OF ETHICS

MOST people seem to think that Medical Ethics is a set of rules gotten up merely to confuse the issue. On my graduation, an older physician said to me, "Treat the other fellow as you want to be treated, and you will have all the ethics one needs." This I have done to the best of my ability.

I have a very few rules, which have covered all my professional relations in 20 years of practice.

1.—I see no reason why I should treat an accident case, just because I was first to see him, if he has a regular physician in the community. I therefore turn the case over to the regular physician as soon as he is ready to take charge.

2.—I never hold on to a patient when I know that he or his relatives are dissatisfied with my service. I discharge the case at once and have them call some one else.

3.—I always refuse to take a case in which I have been in consultation with another physician. I take any other cases, provided I have had no connection as consultant, and the other doctor has been properly dismissed.

4.—I never take a case which has been referred to me by another doctor merely for examination, but make my report and recommendations to him.

5.—When I ask a colleague to consult with me, I feel responsible for his fee and collect it if there is one to collect; and if no fee is collectable, I inform my colleague in advance that there is no money, so he will have the privilege of declining the service if he desires.

6.—I feel it an obligation to the patient or family to inform some responsible relative or friend when I think recovery is doubtful.

7.—I never say anything about a colleague which I would object to having him hear if he was actually behind the door listening.

8.—I make it a rule always to be ready with an excuse for a complaint against a fellow practitioner, because there are so many times when, without apparent cause, something goes wrong and no one could avoid it.

9.—When I think death is near my patient, I always warn the relatives, if they are not prepared for it, *feeling that an unexpected death will lead them to feel that either I did not know it was coming,* or was too mean to notify them.

10.—When in doubt about a diagnosis, I so state to the patient, saying, of course, that I have an opinion on the case, but do not feel like expressing it until after further study.

It may seem strange that such a code should have been formulated, as most physicians will probably state that they never broke one of these rules. However, I have seen most of them broken. I have had men treat one of my regular patients because he was first to reach him. I have had patients, sent for x-ray examination, seized by the radiologist and treated thereafter. I have been called in consultation, to try to hold a case for a fellow practitioner, where he was discharged, regardless of my assurances that the proper treatment was employed, and I was called by the family. I have explained to them that the doctor *might* not think I had stolen the case, but that I could not feel at ease in caring for the patient after he had called me for consultation.

I like to say to my patients, when they desire a consultation, "I am on friendly terms with them all. Call any physician of your choice." At times I can not do this, and then I say, "I am sorry to tell you that there are some physicians whom I refuse to meet. They are good doctors and, if you want to call them, I will gladly step out of the case." I do not try to explain why I cannot meet them. Of course, it usually is not a matter of questioning such a man's knowledge, but his ethics.

M. O. ROBERTSON, M.D.,
Bedford, Ind.

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[The handling of a doctor's ethical relations is an important part of his living—not so much the financial end of it, per-

haps (though it makes a difference there, too), but certainly the social side.

After all, the money anyone receives is not a living, though most people think of it in that way. It is merely the *means for enabling one to live.* Some men with millions can not really live well; while others round out a richly satisfying and useful life with small financial resources. —Ed.]

Sales Tax

WE have heard a great deal, of late, about a sales tax, and we believe our readers will be interested to have a terse, authoritative statement of what it means, because it is something every citizen *needs* to know about. Here it is, then, and though we are not at liberty to quote the authority, we can assure you that it is sound and good.—Ed.

A real sales tax, in its purest form, would be a tax on everything we buy—paid by the ultimate consumer at the time he makes the purchase.

Such a tax, if it could be obtained, would be an enormous revenue producer—would distribute taxation perfectly—would avoid pyramiding and profiteering on tax money—would cost the individual taxpayer very little, compared to what he now pays —would cost the government the minimum to collect — would make us all tax-conscious!

In analyzing this subject, we must remove the common supposition that the poor man is not now being taxed—that the corporations, the merchants, and men in business are bearing the tax burden and that the rich man is being "soaked." *This is positively not the case.*

It is the consumer—Mr. Average Man, every mother's son of them—who pays the taxes—and he pays through the nose; but he is not aware of the fact.

Politicians hate direct taxation, because it calls attention to their waste and extravagance in voting tax money. Their studied plan, therefore, is to levy taxes on the fewest possible number of people—make them as heavy as they dare to without killing the goose which lays the golden eggs—allow those taxed to pass on the burden, after adding compound interest, overhead charges and a handsome margin of profit, which thus decimates the tax under cover, after it has been grossly inflated, to the ultimate consumer.

It is simply another case of getting the greatest amount of feathers with the least amount of squawk.

If it were possible to have a real sales tax, it is estimated it would cost the ultimate consumer not over one-fourth the amount he now has to pay to raise the same amount of money.

So long as the bulk of our people are led to believe that they are tax-exempt and are able, through some miracle, to graft on the socalled rich for the protection afforded by government, just so long will they keep on demanding doles and special class appropriations in the belief they are getting something for nothing.

But the moment they can be made to realize that they, themselves, are paying for all this graft—not alone its original cost, but four times its cost, due to our hidden method of taxation — when that time arrives we will be glad to consider a more sane and just method of direct taxation, where we pay a tax only once, and know exactly what we pay.

As we have stated, the politician is always against any and all forms of direct taxation, because it puts a curb on his graft by making the taxpayer tax-conscious. So the only way left open to effect a saner method of taxation is through the education of the masses. Some means must be found to make the man on the street realize that he is, in fact, and always has been, paying all the taxes, and in addition has been paying interest and profits on these taxes to everyone who has handled them on their way down to him.

Federal Relief for Hospitals*

IN these trying times it is popular to call for federal relief. Our farmers howled for it—and millions were poured into the stabilization of wheat, but the price of wheat did not become stabilized. Our veterans staged a march on Washington in an attempt to have the Government give them bonus cash years ahead of its due date. Our bankers and business men wanted to get the Reconstruction Fnance Corporation to loan them money.

Amidst all the turmoil and trouble, our voluntary hospital system keeps on doing

*Adapted from *Hospital Topics.* July, 1932.

its job, until the back of the system is almost broken by the charity load which is being put upon it. And there is a way which our Federal Government can give relief to the hospitals of the country—to immediately ease the financial burden—to assist them in continuing their vital work—and this federal aid *would not cost the Government money*. It would *save* the Government money—wonder of wonders! Is there any other group or interest in the country that can say as much?

The hospitals in the country do not want loans nor bonuses nor stabilization money. All they ask is that the Government divert to the hospitals the care of disabled veterans. And for this the Government will only need pay the rate per diem that it would cost to maintain these veterans in Government-built hospitals. Thus the veterans will be better cared for, in their own home communities, within reach of their relatives, and at a saving of railroad fare and, better still, at a saving to the Government of the cost of building the large number of veterans' hospitals that otherwise will be required.

In a crisis like this, politics should be pushed aside and our Federal Government should take the logical, reasonable and farsighted course of assigning its veterans to the voluntary hospitals of the country—not only for better care for these veterans at lower cost, but because it will insure the survival of that hospital system which it has taken us years to build up to its present standpoint of efficiency.

HARRY PHIBBS,

Chicago, Ill.

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[Here is a subject intimately related to the success and welfare of physicians, in particular, and of every taxpayer in general. The building of more veterans' hospitals will waste millions of the taxpayers' dollars; take money from the various communities that could well be spent at home; endanger the existence of hundreds of community hospitals; and benefit no one but the politicians.

If every doctor would express his mind on this subject to his representatives in the Congress, and vote this autumn for those who have the right outlook, much could be accomplished.—ED.]

Unwarranted Use of Names in Advertising

An editorial in *J.A.M.A.*, Jan. 2, 1932, states that Dr. E. V. McCollum has written to the Journal pointing out that the use of his name in an advertisement by the National Dairy Co., in support of the vitamin A value of their products, was without his consent; that the statement credited to him was a false report; and that he was unjustly exploited by the advertiser.

The journal adds that, in using Dr. McCollum's name without his consent and in the allegation that he made such an uncritical statement as was credited to him, the National Dairy Company abused grossly the rights of Dr. McCollum as a scientific investigator of repute. The incident serves to point out to physicians, particularly those who are considered authorities in their fields, the necessity of protecting their names against exploitation by advertisers whose primary interest is the selling of their wares, rather than the dissemination of scientific knowledge.

Tell your patients the answer! Ask us for your copy of "What About Heart Disease?"

The Life Insurance Examination

Writing upon the importance of care in the medical investigation of applicants for life insurance, Dr. F. T. Hallam, in *Indianapolis M. J.*, Dec., 1931, points out that any attempt to describe the ideal medical examination would only be a review of the entire field of physical diagnosis. By following the leads given in the examination blank, in obtaining the past medical history and family history, the examiner may be led to give more attention to certain points in the examination.

Careful inspection is essential, and this should begin from the time the applicant is brought before the examiner. It is well to note the color of the eyes, texture of the skin, evidence of jaundice, signs of dissipation, arcus senilis, ocular reflexes; examining the ears for discharge, testing the hearing, noting tremors of the face, hands or body, twitchings of the extremities, gait, premature grayness of the hair or patches of alopecia, general build, anemia, cyanosis, edema or goiter.

The pulse rate should be taken for one whole minute. The blood pressure must be carefully taken by the auscultatory method, special attention being given to the diastolic pressure.

Careful investigation for any possible pulmonary or cardiac abnormalities should be made.

A careful urine analysis is an important part of the examination and it is essential that the specimen obtained is authentic.

The great object of the physicial examination is to obtain information relative to the innumerable illnesses to which flesh is heir, and questions regarding which it would be impracticable to include on the examination blank.

THE · CLINIC

SURGERY

Appendicitis

By Frank B. Young, M.D., Long Beach, California

THE first patient, W. B., age 32, a telegraph lineman, came in suffering from ill-defined pain in the right side. There was, at times, free urination and some nocturia, this being irregular in its occurrence. There was also marked constipation. He had had a previous diagnosis of pyelitis, but a careful and thorough examination of the urinary tract failed to show any urinary lesion of any type. No history of an acute attack of appendicitis could be obtained, but by a process of elimination we arrived at a diagnosis of appendicitis and advised removal of the appendix, which was done under Avertin (tribromethyl alcohol) anesthesia.

At operation, the cecum was found lying just under the liver and bound down by many adhesions, which caused it to be very difficult to mobilize. The appendix was retrocecal, six and one-half inches long, and attached to the posterior parietal peritoneum, with its tip just below the pelvis of the kidney. It was removed, the stump inverted and the cecum freed. Great care was exercised in peritonealizing all denuded areas and in taking every precaution possible to keep the cecum free.

This man had no gas pains, urinary disturbance, nor any other evidence of distress following this operation. He was released from the hospital on the twelfth day, in excellent condition. His bowels are now moving spontaneously without medication and it seems that his symptoms are all relieved.

The interesting points in this case lie in the facts that there was a congenital anomaly here, wherein the cecum did not rotate to its usual position (the right iliac fossa) and that the appendix was long, buried in a mass of adhesions and attached to the posterior peritoneal wall. This attachment probably accounts for the patient's urinary symptoms. It is probable that, in early life, this man had an attack of appendicitis, which was not recognized and diagnosed but which resulted in the great mass of adhesions about the cecum.

Acute Appendicitis

E. S., age 44, had had repeated, moderately-severe attacks of acute appendicitis. About 10:00 A.M., while working about his ranch, he developed a sudden, acute pain in the right lower quadrant of the abdomen, accompanied by vomiting. He arrived at the hospital two hours later, when he had a temperature of 100°F. and a leukocyte count of 16,000, with a differential of 80 percent polys.

He was operated upon immediately, under ether anesthesia, and an acutely inflamed, moderate-sized, retrocecal appendix removed, the stump inverted, and closure made without drainage.

He did not do well at any time following the operation. His temperature rose to 104°F. by the third day with rapid pulse, and his facies showed extreme distress. Examination of the operative wound showed it much inflamed, with an erysipelatous appearance.

The stitches were removed and the incision line opened, but there was no pus. Despite all efforts to stay this inflammatory condition, it progressed throughout the abdominal wall and down over the penis and scrotum, both of which became immensely swollen. Smears of the secretions from the wound showed a streptococcus infection and he was given anti-streptococcus serum. However, all treatment was of no avail and he died on the eleventh day, of septicemia.

Comment: This man had a typical, moderately-severe appendicitis, which was operated upon promptly, and it seemed that he should have recovered without incident. The development of infection in the wound was, of course, due to some break in technic, but what that break was we were not able to find out.

It is of interest to note that two other cases, operated upon by the same team that morning, made uneventful recoveries, as did two more who were operated upon the next day. Of the five cases in twenty-eight hours, only this one had any trouble whatsoever. It is this type of tragedy that comes into the surgeon's life occasionally that makes him wonder if he has not chosen the wrong profession; at least it is a heart breaking experience.

Appendicitis with Appendix in Inguinal Canal

This case is as much in the nature of an anecdote as of any scientific value.

An Italian woman, 34 years old, mother of five children, had an incarcerated, right-sided inguinal hernia. This incarceration had lasted for years, when it suddenly strangulated without apparent cause. The attending physician called me in consultation and I advised immediate operation. There were no hospitals available at that time and the operation was done in the home—a low-grade, board shack, in the most unsanitary surroundings—with chloroform anesthesia.

Being unable to obtain strict asepsis, we resorted to an antiseptic technic. The instruments were boiled and then set aside in trays to cool, after which phenol was added to make an antiseptic solution. As each instrument was used it was returned to this phenol solution until needed again. An Italian woman fanned the flies away from the instrument table and a Roman Catholic priest did the same for the wound.

The contents of the inguinal canal proved to be the appendix, which was about two inches long—a rounded mass, one and one-quarter inches in diameter — and was acutely inflamed—a typical acute appendicitis.

The inguinal canal was opened sufficiently to bring the cecum into it, the appendix was ligated and removed, the stump cauterized with phenol but not inverted, and dropped back into the abdomen and the canal closed in the usual manner.

This woman made an uninterrupted recovery, with a temperature never above 100°F., was doing her usual work in three weeks, has borne three more children with no recurrence of the hernia and, at the age of 66 years, is now in good health and performing all the duties of a housewife, as well as much farm work.

The interesting point in this case is that, under the most unfavorable surroundings imaginable, we were able, by reverting to a strict antiseptic technic, to handle a serious condition with favorable results

Ruptured Appendix with General Peritonitis

A child, age 4 years, was brought into the hospital with a ruptured appendix of four days standing. She had what appeared to be a general peritonitis, was much dehydrated, vomiting and almost *in extremis*.

Our first step was to give her 500 cc. of isotonic salt solution, containing 10 cc. of dextrose, intravenously. This was followed by the sub-pectoral infiltration of 500 cc. of the same solution.

Under local anesthesia, the abdomen was opened through the right rectus muscle and, when the peritoneum was reached, a small amount of ethylene gas was administered. The cecum was freely mobile and the appendix presented at the abdominal opening and was removed and the stump ligated. There was much free purulent fluid throughout the abdomen. A stab wound was made through the right lateral abdominal wall and a cigarette drain introduced; a similar wound was made suprapubically and a drain carried to the bottom of the pelvis; another drain was inserted in the left kidney fossa, coming out through the left side, and the operative wound was closed, with drainage at its lower end.

The child was put to bed in Fowler's position and a Murphy drip of dextrose and sodium bicarbonate started immediately.

She had intense meteorism and, on the fifth day, the cecum presented alongside the drain in the incision line. We had considered doing a jejunostomy, but when this gut became so prominent we opened it by incision, without anesthesia. There was a tremendous discharge of flatus, fecal matter and fluid and, from that time, the child began to improve. The drains were gradually removed, the child was discharged from the hospital on the thirty-fourth day and has remained in good health since.

Comment: The report of this case is sufficient to outline my ideas as to the necessity of drainage. It is my opinion that, had not free drainage been used in this case, the child would have died within twenty-four hours of her admission to the hospital. The one weak point in handling the case was in not doing an enterostomy at the time of operation, a procedure which I have found of much value in many other cases of similar character.

525 Security Bldg.

THE SEMINAR

(Continued from page 671)

was above 90 most of the time. I gave her Lugol's solution, and for the past several months I have not found the rate above 78. There is no cardiac murmur; the blood pressure is normal; hemoglobin, 100 percent (Tallquist).

Examination shows normal pubic hair; hymen intact; external and internal genital organs, normal (including a patent cervix uteri). In fact, she appears to be a splendid physical specimen.

This patient has received the obvious endocrine remedies— Hormotone; various ovarian preparations by mouth; 60 subcutaneous and intramuscular injections (1 cc. each) of Theelin; and, because of the thyroid condition, 20 1-cc. ampules of Antuitrin, all without the least effect.

Requirement: Suggest the etiology and treatment of the amenorrhea.

What the Surgeon Ought to Be

The conditions necessary for the surgeon are four: first, he should be learned; second, he should be expert; third, he must be ingenious; and fourth, he should be able to adapt himself.

It is required for the first that the surgeon should know not only the principles of surgery, but also those of medicine in theory and practice; for the second, that he should have seen others operate; for the third, that he should be ingenious, of good judgment and memory to recognize conditions; and for the fourth, that he is adaptable and able to accommodate himself to circumstances.

Let the surgeon be bold in all sure things, and fearful in dangerous things; let him avoid all faulty treatments and practices. He ought to be gracious to the sick, considerate to his associates, cautious in his prognostications. Let him be modest, dignified, gentle, pitiful, and merciful; not covetous nor an extortionist of money; but rather let his reward be according to his work, to the means of the patient, to the quality of the issue, and to his own dignity.—From the Introduction to the General Chapter, Ars Chirurgica, *by* Guy de Chauliac, *14th Century.*

CLINICAL · NOTES
AND
PRACTICAL · SUGGESTIONS

Hydrochloric Acid Given Intravenously
(A Clinical Report)

HAVING seen, in CLIN. MED. AND SURG., reports of the intravenous use of dilute solutions of hydrochloric acid, I venture to report several cases treated with that drug.

Case 1.—On Aug. 18, 1931, I confined a primapara weighing 90 pounds, with the child, which weighed 12 pounds, in the breech position. The labor was difficult and the child died two hours after birth.

On the third day the family sent word that the patient had a hard chill and a high fever and, as the house was not screened, I suspected malaria and sent her calomel and quinine.

The next day she was reported to be much worse, so I went to see her and found her temperature 106°F.; pulse, 140; respirations 40 and very irregular. The lochial discharge was scant and foul-smelling and there was a considerable mass in the left iliac region.

I gave her an intravenous injection of 5 cc. of hydrochloric acid, 1:1,500, and within thirty minutes she was bathed in sweat and said she felt much better. At the end of an hour her temperature was 103°F. I repeated the injection each day for four days, and on the fifth day her temperature was 99°, so I omitted the injection for two days, and her temperature rose to 101°, though the mass had almost disappeared. I gave another similar injection and her temperature promptly fell to normal and remained so. She is now in excellent health.

Case 2.—On Oct. 10, 1931, I was called in consultation to see a primipara suffering from eclampsia. She had no more convulsions after the baby was born, but on the third day she had a hard chill and a high fever and was very restless. I suggested giving her hydrochloric acid, 1:1,500, intravenously, but the attending physician hesitated to do so. We therefore administered 1 cc. of mixed-infection vaccine.

The next day she was no better, her temperature was 105°F., the lochial discharge was scant and foul-smelling and there was a mass in the pelvis, so her physician consented to my giving her an intravenous injection of 5 cc. of 1:1,500 hydrochloric acid solution, soon after which she began to sweat profusely. The next day her temperature was 102.°, and the injection was repeated. My supply of the acid solution was then exhausted and three days passed before I could obtain more, during which her condition became worse. When the new supply arrived I gave two more injections, after which the temperature fell to normal. The patient is now in good health.

Case 3.—A man of 60 years consulted me with a badly infected and much swollen hand, showing signs of lymphangitis. I gave him an intravenous injection of 3 cc. of 1:500 hydrochloric acid solution and after 40 hours the inflammatory symptoms subsided completely and did not reappear. He is now well.

Case 4.—A man consulted me because of ulcers over his shins. These had been present for several years, in spite of the

use of many kinds of salves and lotions. They would heal during the winter, but break down again with the advent of hot weather. I gave him one intravenous injection of hydrochloric acid, 1:500, and in one week the ulcers were healed.

Case 5.—A woman, 63 years old, had a severe attack of **tularemia** of a week's duration, with a large ulcer on her index finger and blebs over her hand and forearm. She had been having chills and high fever.

I suggested an intravenous injection of hydrochloric acid, 1:500, but her arms were so fat that it was impossible to find an accessible vein. I therefore injected 3 cc. of this solution intramuscularly, in the gluteal region, repeating the injections daily for ten days, at the end of which time she was entirely well, and so continues.

I have treated several cases of acute **malaria** with intravenous injections of 1:500 hydrochloric acid, in doses of 3 cc., and the symptoms ceased at once, without any untoward results in a single case.

WILLIAM I. HOWELL, M.D.,
Lexington, Tenn.

Introspection as the Result of Medical Examination*

MEDICAL examinations often lead to pathologic introspection on the part of the patient and result in distress of body and mind. The general practitioner, because of lack of information as to psychiatric problems and because of his training, frequently overlooks the psychogenic factors in his diagnosis and places all the emphasis on the medical or surgical treatment.

In recent years, the psychiatrist himself has come to a better understanding of psychiatric problems and is better able to assist the general practitioner.

The psychiatric conception is that the human being is a psychobiologic unit, in which the psychic and physical elements are interdependent, reacting one upon the other.

Physiologic researches, which threw light upon body changes in pain, hunger, fear and rage, have been followed by recent clinical and laboratory studies calling attention to the intimate relationship between emotional states and metabolic processes. In an acute psychotic disorder with intensely painful emotions, there is a tendency to hyperglycemia and a definite retardation of the gastrointestinal motor function. The calcium and phosphorus content of the blood is increased in a manic state, while there is a relative decrease of these substances in a tense, agitated, depressed state. Palor, flushing, dryness of the mouth, frequent micturition and changes in lacteal secretions are associated with different emotional states.

Researches in physiology and psychopathology are contributing much to the understanding of cell and body functions as the results of emotional states.

Fear is one of the factors almost constantly in the emotional field. It is an important factor in the production of certain stimulations and influences upon the body functions. The physician should consider, then, the possibility of its production as the result of medical examination and consultation and the danger that may arise therefrom.

The following cases are illustrations:

Case 1.—A young woman with a complaint only of painful menstruation was examined by the family physician. Excluded from the conference between the physician and her mother, the girl was seized with the fear that something dreadful was found. The fear of an advised consultation with a surgeon and the added fear of operation contributed to a general breakdown in health and imaginary ills. The surgeon's suggestion that a delay in operating would lead to tuberculosis or a loss of her mind completed the breakdown.

Case 2.—A young man, because of the manner in which he was advised that he had syphilis, developed into a psychoneurotic of the psychasthenic type, with syphilophobia. The attitude of the physician, in holding up his hands as though in horror of touching anything until he had thoroughly cleansed them, recalled to the patient the picture of a man with the same malady, who was particularly loathsome to him.

Case 3.—A woman, who went into eclamptic seizures at the birth of her second child, was advised that another pregnancy might result in mental trouble such as a friend had had. The fear of this so depressed her that, when she did become pregnant, she went into a catatonic state, from which she has not recovered.

To prevent introspection as the result of such fear, the physician must have a working knowledge of psychiatry, which will give him the proper approach. He must be a good diagnostician of human nature. He needs to know how to estimate quickly and accurately the personality of the patient—whether he is courageous and able to hear the facts and fight, or lacking

*Author's abstract of a paper appearing in *So. Carolina M. J.*, Sept., 1931.

in courage and easily disheartened. The physician should inspire a spirit of courage and patience.

To give the physician this understanding, there is need of better instruction in our medical schools and the establishment of psychopathic wards and clinics in all general hospitals. This would give the student opportunity to study various types of psychoses, furnish a place for the treatment of psychotic patients, afford a common meeting ground for the two fields of medicine and furnish material for the instruction of staff officers, interns and student nurses. Such a relationship would enlarge the usefulness of all concerned.

C. F. WILLIAMS, M.D.,
Superintendent, S. C. State Hospital.
Columbia, S. C.

Resuscitation After Electric Shock

1.—Clear the victim from current as quickly as possible; *seconds count.*

2.—Start resuscitation by the prone pressure method, carried out, preferably, by well trained men, as quickly as possible.

3.—Use warmth — blankets, hot water bottles, etc.

4.—Carry out resuscitation until the patient breathes or there are definite signs of the onset of rigor mortis.

5.—After the patient is breathing of his own volition, do not allow him to sit or stand but transport him, in the recumbent position, to his home or to a hospital, put him to bed and treat as for surgical shock.

The method outlined is also applicable in cases of drowning and gas poisoning.

WILLIS MACLACHLAN,
Toronto, Can.

Tell your patients the answer! Ask us for your copy of "What About Heart Disease?"

I think CLINICAL MEDICINE AND SURGERY is the best medical magazine I have ever read. It is replete with interesting thought, articles that show wonderful originality in research, true philosophy upon which the practice of medicine rests.—M. R., M.D., Yates Center, Kans.

The only real, sensible medical journal published in the U. S. today.—F. J. S., M.D., St. Louis, Mo.

More About Sex Control

I HAVE read the article on "Sex Control" in CLINICAL MEDICINE AND SURGERY for July, 1932 (p. 536), but I have noticed several cases that did not turn out the way these cases did for the doctor who wrote the article.

For instance, I have one patient who, before her marriage, had her right ovary removed, and she has four children—two boys and two girls. Another patient also has four children, having borne a boy and a girl, and later, after having one ovary removed, she has since had another boy and a girl. How would Dr. Meyer account for these two cases?

I have checked several cases and have tried to work out the rules of Dr. E. Rumley Dawson, of England, but my results, so far, have been very unsatisfactory. According to my cases, mentioned here, the ovary apparently has no control over the sex of the child.

HARRISON G. PALMER, M.D.,
Detroit, Mich.

I have just read "Sex Determination" in the June CLINICAL MEDICINE AND SURGERY (p. 536). When I first began the practice of medicine in 1883-84, my patients often asked me how they might be sure of having a girl or boy.

Remembering the rule my father followed with his mares when breeding—if he wanted a mare colt, he bred the mare in the first 2 or 3 days of the heat; for a male, the last 2 or 3 days of the heat—I instructed my patients to observe the first 5 days after the menses for a female; and 8th, 9th or 10th days after the menses stopped for a male child. When the patient followed directions strictly she never failed to give birth to a child of the sex wanted. I have watched the result of my instruction for 48 years and have never been told that it failed, where the parents were careful to follow directions.

My opinion is that the female ovum develops faster than the male ovum and thus would be thrown off first, just as the female is developed more at 14 years than male at 16.

I have taken care of nearly 5,000 cases of confinement during my practice.

HELENA K. WINK, M.D.,
Jamestown, No. Dak.

Psychotherapy by Mail

THE extracts from letters which follow tell a story which seems sufficiently unusual to be worth recording.

C————, Fla., Jan. 23, 1932.

Dear Doctor:

A patient and close friend of mine, a man 52 years old, who recently married a woman much younger than himself, is much troubled by the fact that he is completely impotent sexually. The physicians here have been unable to help him. He appears to be in perfect health and recently passed the physical examination for a $10,000 life insurance policy.

If you can make any suggestion in this matter it will be greatly appreciated.

G. M. B., D.D.S.

Chicago, Ill., Jan. 28, 1932

Dear Doctor B.:

The condition outlined in your recent letter is probably much commoner than you imagine.

In from 75 to 90 percent of such cases the difficulty is psychic, rather than physical, and when this is so, the only individual who can help is an understanding and sympathetic psychotherapist. I have handled some cases of this sort successfully, but I assume that your patient would not care to come such a distance to see me.

I should not recommend his taking any endocrine or other remedies, unless these are prescribed by a physician, after a careful examination has shown definite glandular deficiency or other physical indications for such medication.

Under proper handling, patients of this sort can be given marked benefit, but it is not a condition that will respond to long-distance treatment or to guesswork.

G. B. L., M.D.

C————, Fla., Feb. 20, 1932.

Dear Doctor:

There has been a peculiar and very gratifying sequel to our correspondence.

I allowed Mr. X. to read your letter. In fact, he read it several times.

About a week later I met him on the street and he said, "That doctor in Chicago said he couldn't do anything for me so far away, but *he has*. I have been thinking over what he said ever since I read his letter and I find that my power has returned. Thank him for me."

So, you see, you have brought happiness into the world, for one man at least.

G. M. B., D.D.S.

C————, Fla., Mar. 3, 1932

Dear Doctor:

I saw my friend, Mr. X., yesterday and he tells me that he has had no trouble since.

He said, "What was there about that letter that could straighten me out like this?"

I laughed and told him it was an example of long-distance psychotherapy. In my opinion, your letter *really did cure him*.

G. M. B., D.D.S.

This correspondence is submitted on its merits, for what the reader may consider it to be worth.

GEORGE B. LAKE, M.D.,

Chicago, Ill.

Mania and Crime

EVERY year many serious and minor crimes are committed by persons suffering from coercive ideas. Offenders of this order exist in every class of society in civilized nations. They are rarely suspected as insane subjects and, in many instances, their relatives and associates fail to note signs of abnormality.

The victim of compulsive states is usually extremely secretive and exercises remarkable cunning in gratifying his obsessional idea.

A craving to inflict pain and to shed blood is the motive, in many instances, of violent assault and murder. The source of this impulse is in the fundamental primitive instincts of mankind. Civilization is a long process of repression. A child repeats the life of the race. If he is badly nurtured he will retain one or more of the savage impulses that he inherits and this survival may lead to appalling crime in manhood.

The strange, but common, aberration known as "plait cutting," illustrates the survival of savage violence and is a substituted form of scalping the victim. The culprit in one notorious case had collected a large number of plaits and tresses of hair cut from the heads of women in the street. He was a graduate of a university, member of a respected family, and described by his friends as "high minded and gentle."

The "dress slashers" are another class of prowling degenerates, who find satisfaction in the symbolic act of damaging women's clothes with a knife. The impulsive criminals who throw paint or ink upon women's costumes are fairly common in every city.

The most dangerous of these psychopathic delinquents are the subjects of cruel or murderous compulsions. A typical example was "Jack the Ripper," the Whitechapel murderer, who was never brought to justice.

These monomaniacs are often apparently normal and sane and there is nothing in their ordinary conduct that suggests madness. It is this apparent sanity that renders the detection of their crimes so difficult. The secret of their terrible propensity is known only to themselves.

Modern investigators of abnormal impulses agree, in the majority, that they arise from misdirection of the primal instincts in early childhood. The potentiality for horrifying crime exists in an enormous number of children, but this latent tendency can be changed by the right training at home and in the school.

The neglect of the study of the sources of human behavior and the mechanism of character formation in the young is a chief contributing cause, if not the root origin, of much crime, mental abnormality and insanity. We are sadly in need of a Ministry of Applied Psychology.

B. SHERWOOD-DUNN, A.M., M.D.
Nice, France.

The Prevention of Diphtheria

DIPHTHERIA is caused by the diphtheria or Klebs-Löffler bacillus, which grows and multiplies in the nose and throat of human beings. It will also grow in milk, and several epidemics in this country have had their origin in infected milk supplies. Aside from milk and the culture medium used in the laboratory for the purpose of growing these germs, it is doubtful that they grow to any appreciable extent outside the human host. A general idea prevails that these germs are rather resistant and consequently live for a long while outside of the body. It is probably safe to say, however, that as the result of drying and the action of sunlight, the vast majority of them die in a very short time after leaving the human body. The source of infection for practical purposes, therefore, may be considered the fresh, infected secretions from the nose or throat of human beings suffering from this disease, or from a person who is a carrier.

A diphtheria carrier may be defined as an individual who harbors the diphtheria bacillius in the nose or throat without experiencing any discomfort therefrom. It is conservatively estimated that from 1 to 2 percent of the general population are diphtheria carriers. In time of epidemics the percentage of carriers is quite frequently much higher than this. The carriers and the mild and missed cases are the chief sources of danger to the general public, since they are constantly moving around among well people without restrictions.

The transfer may be made by direct or indirect contact. The simplest example of the transfer of this material by direct contact is through the habit of kissing. The most important method of transfer is through indirect contact, by which is meant contact with objects which have recently been soiled with infected discharges from another person, such as the common drinking cup, some socalled sanitary bubbling drinking fountains, pencils, pins, needles, hatpins, pipes, partially eaten particles of food, forks, spoons and similar objects.

In the transfer of this type of infection from one person to another, the fingers are probably the chief agents. It has been said, "Who can doubt that, if the salivary glands secreted indigo, the fingers would continuously be stained a deep blue?" Everyone is busily engaged in this distribution of saliva, so that the end of each day finds this secretion freely distributed on the doors, window sills, furniture and playthings in the home, the straps of trolley cars, the rails and counters and desks of shops and public buildings, and, indeed, upon everything that the hands of man touch.

Bearing in mind these fundamental principles, the following measures are recommended for the prevention of diphtheria, in the application of which every parent, schoolteacher and family physician should render active cooperation. Two important measures must be used in the prevention: (1) Strict adherence to the rules of personal hygiene; and (2) the immunization of all people who are likely to have diphtheria, as shown by the Schick test.

U. S. PUBLIC HEALTH SERVICE.
Washington, D. C.

THE · LEISURE · HOUR

The Medical Craftsman*

HE was a fellow passenger on a Red Star Liner, Antwerp-bound, last summer. When I first noticed him, he was taking his mile around the promenade deck. I was impressed by the vigor of his stride, the forcefulness of his conversation with a deck companion.

He was obviously a Norseman, but thoroughly americanized in his bearing. Probably a successful business man from the Midwest, I catalogued him. Yet there was that fervency, that aura of the artist-craftsman about him, which did not fit with the picture of an American business man.

Before we passed the Newfoundland banks, he introduced himself: a physician, Scandinavian by birth, in America since he was one year old; grown up in the Midwest and graduated from one of that section's larger medical schools.

The more I talked with him, the clearer became the significance of that cold, blue, far-away gaze—the man was an artist-craftsman. Medicine was his art and his craft. At 40 he was still full of the fire of a youngster discovering his true calling. He discussed medicine with an almost exaggerated reverence—the reverence of the musician toward notes, of the writer toward words. Inwardly I wondered how such a man, qualified in spirit to carve his name among the medical immortals, fared in practice.

He had, he volunteered, treked immediately from his internship to the far Northwest, and had settled there in a small community, the center of a fertile region. For ten years, aided by motor car, horse, and at times airplane, he had cared for the ailments of a widespread and grateful population. They were, he assured me, a wonderful people. Many of them were rough, not too well educated, and lacking in the amenities of life. "But they are the salt of the earth!"

He was going abroad to study. No, he wasn't going to specialize. He was going to continue in general practice, in the same place. He had prospered, and would have continued to prosper, without further intensive study. But, like every true craftsman, he felt his own limitations. He believed his people were entitled to the very best, and he was determined to see that they received it. In consequence, a young medical man was brought in to act as locum tenens, and the doctor was off for a year's postgraduate work in Europe.

"These people stood by me in the early days of my practice, when I needed the money," he said, "and now I shall show my appreciation by giving them what benefit comes to me through a broader knowledge."

This man exemplifies the spirit of craftsmanship so observable in the medical profession. Their craft, their art, their patients, are of first importance. Financial success and fame are considered secondarily—or, more often, not at all. Where can you look and not see physicians, true craftsmen, who have put aside the hope for great emolument in order to serve "their people?"

These men are rich in those things which go to make up the very best in life. They are heroes who will die without world-wide honor, but not without honor of a very deep and sincere kind.

They are not guided by a printed code of ethics, but by an innate sense of the beauty of service, by a love for the craft of medicine. With such practitioners is the medical profession replete.

H. SHERIDAN BAKETEL, M.D.,
Jersey City, N. J.

*Reprinted editorial from *Med. Economics*, Mar., 1932.

Changeling

The absent-minded professor called his biology class to order shortly after the lunch hour.

"Our special work this afternoon," he said, "will be cutting up and inspecting the inward workings of a frog. I have a frog here in my pocket to be used as a specimen."

He reached into his pocket and pulled out a paper sack, shook its contents on the table, and out rolled a nice looking ham sandwich. The professor looked at it, perplexed, scratched his head and muttered:

"That's funny; I distinctly remember eating my lunch."—*The Doctor.*

Modern Interpretation

On his tour of the district, an inspector of high schools came before a class of girls. He wrote on the blackboard, LXXX. Then, peering over the rims of his spectacles at a good-looking girl in the first row, he asked:

"Young lady, I'd like to have you tell me what that means."

"Love and Kisses," the girl replied.

—*Save The Surface Mag.*

Hopeless Case

"Nurse," said an amorous patient, "I'm in love with you. I don't want to get well."

"Cheer up, you won't," she assured him. "The doctor's in love with me, too, and he saw you kiss me this morning."—*Patchwork.*

Another reason for divorce is that no house is big enough for two people who weren't spanked enough in childhood.—*Fountain Inn Tribune.*

Our Civilization

In the United States, about $125,000,000 a year is paid to astrologers, phrenologists and soothsayers.—DR. STEWART PATON, in "Prohibiting Minds," Paul B. Hoeber, 1932.

We are unexperienced beings standing at the first flush of dawn of civilization.—SIR JAMES JEANS, in "Man and the Stars," E. P. Dutton, 1929.

The Real Question

Wife: Do you know that you haven't kissed me for six weeks?

Doctor (who is absent minded): Good heavens, who have I been kissing, then?—*Wisconsin Octopus.*

Medically Speaking

It was a hot day and seven cars were waiting their turn at the filling station. The last one was a steaming little 1925 "Rattler," with six rattlers and a button. Finally it came its turn (even a Detroit worm will turn) and the peevish attendant yelled: "How many gallons?"

The driver of Elizabeth held up one finger.

Said the attendant: "Wotinell are you tryin' do do? Wean it?"—*Pickup.*

Prayer

God that my fathers bent before;
God whom I, upright, worship more!
Keep me from bowing a battered head;
Let me not weep too long for the dead;
Send me the courage to face the sun,
Blind to the havoc the night has done!
Harden my jawbone, stiffen my spine
And pound through my veins a blood like wine!

Teach me to bare my chest to the wind;
Bathe me in Lethe if I have sinned;
Show me the way on a high, bright road;
Give me a thin, white dream for goad!
Build me a house of mighty rafter
And, Lord of my fathers, lend me laughter!

—SEYMOUR G. LINK, in *Interludes*

Proceed at Your Own Risk

Young lady (just operated on for appendicitis): "Oh, doctor, will the scar show?"

Doctor: "Not if you are careful."—*American Stories.*

Life goes along much more pleasantly and sweetly if you just take it for granted that your friends are loyal and never ask them for anything.—ROBERT QUILLEN.

THUMBNAIL · THERAPEUTICS

Bacteriophage as a Wound Treatment

Bacteriophage is the easiest, simplest wound treatment to carry out, entails the least hospitalization and is the most efficacious. Of great importance is the fact that, when using bacteriophage, no window (such as is required for Carrel-Dakin irrigations) need be cut in the cast; thus, absolute immobilization, imperative in suppurative joints, in compound fractures with osteomyelitis, etc., is not interfered with. Furthermore, the vaseline gauze pack, employed in the bacteriophage treatment, affords uuiform pressure over the wound, thus avoiding excessive granulations and wound edema and fulfilling an important requirement for wound healing. It requires the least amount of work on the part of the surgeon and his assistants, thus saving much time for other patients. Equally important is the question of expense to the patient, which is reduced to a minimum by eliminating expensive, prolonged hospitalization.—Dr. F. H. Albee, of New York, in *Internat. J. Med. & Surg.*, Feb., 1932.

Colostomy

In cancer of the rectum, do not do a colostomy unless there is a reasonable prospect of cure.—Dr. William J. Mayo, Rochester, Minn.

Protein Therapy in Ocular Diseases

Diphtheria antitoxin, which is easily available and prepared in syringes for parenteral injections, gives as good as, if not better, results in ocular infections than any of the other proteins, according to the experience of many observers and of the writer. Diphtheria antitoxin should be used in doses of 5 to 5000 units, which can be repeated in ½ dose every 48 hours several times. It is especially valuable in treating traumatisms liable to become infected while awaiting the services of a specialist.—Dr. S. Morse, in *Eye, Ear, Nose & Throat Monthly*, Oct., 1931.

Vomiting of Pregnancy

Large doses of bromides will control most cases of severe vomiting of pregnancy. Those which have developed a marked acidosis have not been relieved by it and require dextrose, which I have used by the method of Titus—giving 75 grains once or twice daily in 15-percent solution.—Dr. C. J. Andrews, of Norfolk, Va., in *Southern Med. & Surg.*, July, 1931.

Sedatives in the Psychoneuroses

The evaluation of therapeutic measures is rarely considered in present neuropsychiatric practice, but nevertheless the clinical value exists, to bridge over temporary gaps in the management of distressing psychogenic disturbances. The necessity still remains for the judicious administration of effective sedatives as a mode of treatment in difficult and perplexing situations, and the recovery is approached by various means and avenues.—Dr. B. P. Weiss, of Philadelphia, in *M. J. & Record*, July 15, 1931.

The Digestibility of Cooked Meat

The cooking of food, especially of meat, has been regarded as an effect of civilization, but many have considered that, in general, raw food is more digestible than cooked food.

In regard to raw meat propaganda, recent experiments have shown that, taking rapidity of hydrolysis as a criterion, meat when raw is in the least digestible condition. The most rapidly digested meat is that which is roasted or grilled until it is just red inside with a moist surface when

cut. If the heating is carried beyond this point and the meat is definitely overcooked, the rate of digestion is slowed, but, unless the meat is actually carbonized, it even then appears to be more rapidly digested than raw meat. The decrease of digestibility in overcooked meat appears to be due to hardening and drying of the protein.—Editorial, *J.A.M.A.*, June 13, 1931.

Tell your patients the answer! Ask us for your copy of "What About Heart Disease?"

Poisoning from Small Dose of Atropine

In a male patient aged 28 years, symptoms of atropine poisoning appeared following the taking of one "Rhinitis" tablet, containing only an estimated 1/800 grain of atropine. The man appeared to have been particularly susceptible to this drug. —Dr. T. S. Evans, of New Haven, in *New York St. J. Med.*, Aug. 1, 1931.

Planning a Diet

I am frequently asked to state as concisely as possible the most important rules for planning an adequate diet. I advise that the daily diet be built up around one quart of milk or its equivalent in dairy products. This will provide about 800 calories or about one-third to one-fifth of the day's requirements of the ordinary adult; and about one-fifth of the needs of the average adolescent boy or girl.

The daily diet should include at least one serving of a leafy vegetable, also one or two salads. Salads provide an abundance of vitamin C which appears, in the light of recent researches, to have a greater significance in the prevention of dental disease than was formerly supposed.—Dr. E. V. McCollum.

Hysterical Monocular Amaurosis

A case of sudden monocular amaurosis in a woman of 21 years is reported, in which no etiologic factor could be discovered, other than hysteria and "nervousness."

Vision, which was entirely absent in the left eye, returned following suggestion, at first with dim light perception and then a gradually increasing form sense.—Dr. E. L. Kniskern, in *J.A.M.A.*, June 27, 1931.

Cucurbocitrin in Vascular Hypertension

A review of the literature shows that the administration of cucurbocitrin, a water-soluble principle apparently belonging to the glucoside-saponin group and extracted from watermelon seeds, effected a reduction of hypertension in from 73 to 82 percent of the patients tested.—Dr. I. S. Barksdale, of Greenville, S. C., in *M. J. & Record*, Feb. 4, 1931.

Vomiting in Infancy

Phenobarbital, when combined with proper diet, is an efficient and often a specific remedy in relieving vomiting of pylorospasm in infants. Fewer cases of pyloric stenosis require surgery when it is used.—Dr. E. J. Barnett, of Spokane, Wash., in *Northwest Med.*, March, 1931.

Paget's Disease

In Paget's disease of the breast, the only hope of permanent cure lies in early diagnosis and radical surgical treatment.—Dr. Edmond M. Eberts, Montreal, Can.

Reactions Following Intravenous Medication

Physicians cannot be too careful in the preparation of intravenous solutions. The occasional reactions that occur might, to a large extent, be avoided if new rubber tubing is soaked before use in a weak alkaline solution for 24 hours, followed by a weak acid solution for 24 hours, and then by cold distilled water for 12 hours. The water used for solution should be doubly distilled through a filter, sterilized immediately and kept sterile in pyrex containers.—Dr. J. P. Kennedy, of Charlotte, N. C., in *Southern Med. & Surg.*, Feb., 1931.

Current · Medical · Literature

Vitamin A and Infections

In an article on the clinical features of vitamin A deficiency, in J.A.M.A., June 11, 1932, Drs. G. B. Eusterman and D. L. Wilbur, of Rochester, Minn., point out that the high susceptibility to infection of the respiratory organs of the rat and other experimental animals, when deprived of an adequate amount of vitamin A, seems to be borne out in man. Of 86 children with xerophthalmia, Bloch noted the presence of pneumonia in 15 and bronchitis in 12. Nasal and tracheobronchial catarrh was prevalent also. All the pulmonary complications were severe, and there was no improvement or cure until a sufficient intake of vitamin A was provided. To an inadequacy of vitamin A in the human dietary, McCarrison has attributed the high incidence of infection of the nose and accessory sinuses, including otitis media, and of the upper respiratory passages and lung, because of the prevalence of these diseases in albino rats when their diet is also inadequate in this vitamin.

Many observers are agreed that vitamin A is a physiologic prophylactic against infection, by virtue of the fact that it maintains the integrity of the epithelial linings of the mucous tracts and the skin; but its "anti-infective" function, that is, its ability to cure infections when the barrier of the mucous membrane has been passed, or to prevent or cure infections of the blood stream, is still not established. Accumulating experimental evidence, however, tends to support the hypothesis that vitamin A plays a part as an anti-infective agent.

A New Tuberculin

Old tuberculin (O. T.) is a mixture of bouillon and all the metabolic products of the tubercle bacilli grown in it and is, of course, decidedly variable and more or less uncontrollable in its composition, so that a more precise testing substance is highly desirable.

Drs. E. S. Mariette and E. P. K. Fenger, with their associates, have been working on this problem for some time and have reported their results in *Am. Rev. of Tuberc.* for March, 1932.

For this work, four types of acid-fast bacilli were used: tubercle bacilli of the human, bovine and avian types, and the timothy-grass bacillus. The exactly controllable protein substance isolated is called MA100, followed by the name of the source (human, bovine, avian or timothy).

Extended experiments have shown that MA100 is just as specific as and more sensitive than O.T., as a diagnostic procedure, while the dose required to produce a reaction is considerably smaller than that of O.T., except in the case of that made from the timothy-grass bacillus, which is the same (0.01 mgm.). The doses of the others are: Human type, 0.0005 mgm.; bovine, 0.0001 mgm.; avian, 0.001 mgm. No higher percentage of positive reactions is produced by larger doses; and the tests made on 854 known tuberculous persons showed positive results in 92 percent. No dangerous reactions were produced and few that were even unpleasant.

It would seem that there is a protein substance, common to all acid-fast bacilli, which, if given in sufficient dosage, will produce the same type of skin reactions as those seen after using Koch's old tuberculin, and that this substance can be produced under accurately controlled conditions, so that it will be uniform in composition and strength and the doses used can be adjusted with precision.

Acidosis Treatment of Inoperable Malignant Tumors

In a recently published book, Dr. Willy Meyer, of New York, has attempted to show that for inoperable cancer, acidosis is the proper remedy.

In *Am. J. Surg.*, Jan., 1932, he reiterates that, in patients afflicted with technically inoperable cancer, with or without metastases, all factors known to produce acidosis of the blood, properly selected, combined and adapted to the case in hand, should be put into operation as quickly and as vigorously as possible.

The biologic acidosis treatment of inoperable malignant tumors must be worked out further by cooperative efforts of the members of the medical and affiliated professions.

To all appearances, those who are working along the lines of acidosis treatment of patients afflicted with inoperable malignant tumors are on the right track.

Therapeutic Uses of a New Gas—Socalled Octozone

In 1927, Royer, of Lyon, France, discovered a new gas which he termed "Octozone" (O_8). It was produced by passing oxygen, at a pressure of about 5 pounds, through an instrument called the "Electronizer." It probably would be more correctly described as O_4.

In *Brit. J. Physic. Med.*, June, 1932, Dr. R. Fawcitt describes the apparatus for production and the therapeutic applications of this new mode of oxygen therapy, which he has used in his hospital clinical practice, as a powerful oxidizing agent. The gas may be applied by spray, subcutaneously or intramuscularly, in-

jected into sinuses and cavities, into the rectum, bladder or vagina, passed into water and the solution taken by mouth, or given as a "bath."

Royer claims that the gas is of value in septic sores, eczema, varicose ulcers, furunculosis, encephalitis, hemorrhoids, otitis, x-ray burns, rheumatism, diabetes, sciatica, arthritis and several other conditions. These claims have been substantiated by other users, and by Fawcitt to the extent he has used it. He thinks that the interest of the profession should be aroused to this new remedy, which may be of great value. He has never seen any harm result from it.

Use of Bacteriophage in Staphylococcic Infections

In *Illinois M. J.*, Oct., 1931, Drs. A. A. Jansen and R. L. Larsen, of Evanston, Ill., express their opinion that it is extremely desirable, in preparing bacteriophages, that they should be tested in vitro against a culture of the specific offending organism, before being tried clinically. If this cannot be done, a polyvalent bacteriophage should be prepared.

The usual method, applied by the authors and others who have used their autogenous bacteriophage preparations, is as follows:

About 1 cc. of the broth containing the phage is injected directly into the infected area.

A gauze or cotton dressing saturated with the solution, is placed over the infected area, covered with oiled silk and held in position by a bandage or adhesive strips.

The dressing is kept moist by periodically saturating it with more of the solution.

When the infection is in the ear canal or the nose, pledgets of cotton saturated with the solution are left in the cavities.

Intramuscular or intradermal injections of the solution may be used, in addition to the local treatment when indicated.

The results from this treatment in staphylococcic infections has been uniformly successful. No failure has been recorded where the phage has been properly selected by typing in vitro previous to clinical application.

Traumatisms of the Abdominal Viscera

From a consideration of various traumatic injuries of the abdominal viscera without external wound, illustrated by 12 selected typical case reports, Dr. H. Robertson, of Sayre, Pa., in *Am. J. Surg.*, Nov. 1931, concludes that conservatism in treatment has proved to be the best policy. If one has to err in his handling of an intra-abdominal injury, it is safer, in a group of cases, to err on the side of doing too little.

No one can be dogmatic concerning the treatment of these injuries. Each case presents a different problem and should be dealt with accordingly. Some patients should be operated upon immediately; others should never be subjected to operation. Any trauma involving the abdomen calls for critical study.

Differential diagnosis is difficult and often impossible. A clear conception of the modus operandi of the injury and the force involved will throw much light on its probable nature and make diagnosis much easier.

The author operates only upon those patients showing evidence of uncontrolled hemorrhage or peritonitis.

Non-Specific Protein Therapy

As reported by Dr. H. W. Yates and D. Davidow, of Detroit, in *J. Michigan St. M. S.*, Dec., 1931, since 1924, they have treated 1,207 hospital and about 1,000 out-patients by non-specific protein (sterile milk) therapy, about 8,000 injections altogether having been given.

Of the 1,207 hospital patients, 1,038 had an acute or chronic salpingitis; there were 32 with infected fibroids; 72 septic abortion cases; and 61 pelvic or bartholin abscesses. Of these 1,207 patients, 519, or 43 percent, have been operated upon after receiving this form of treatment, while the remaining group have shown such improvement as to refuse operation in some instances and not require it in others. Only 120 patients received more than 3 injections — the first being 5 cc. and subsequently 10 cc.

The treatment is not specific, but should be used as supplementary to other recognized supportive measures; acute cases of adnexal disease are most adaptable to its use; patients who have had repeated infection, with resulting fibrosis, receive little or no benefit. Patients must be selected.

In none of the patients have the reactions done harm where contraindications were adhered to. There has never been an anaphylactic shock nor has an abscess developed at the site of injection.

The author is of opinion that, should cellular repair depend upon the increase of leukocytes and their activity, then it would appear that protein therapy is rational.

Migraine

Although physicians are generally disinclined to take professional suggestions from laymen, it is reasonable to suppose that an intelligent and thoughtful man, who has lived with a chronic disease for years, may have ideas about it which are worth hearing.

In *Ann. Inter. Med.* for June, 1932, Mr. Walter B. Sheppard, of Denver, Colo., writes of a personal experience with migraine covering forty-seven years, during which he has studied that disease rather fully. His ideas of the etiology may not be especially helpful. His picture of the prodromes and symptoms is detailed and vivid and is worth, to any physician, the time it takes to read it. But it is his remarks on prophylaxis and treatment that are especially valuable.

Mr. Sheppard has noticed that any intercurrent infection, accompanied by fever, will result in complete freedom from attacks of migraine for weeks or months.*

His prophylactic suggestions are: A maximum allowance of sleep (12 hours a day, including an afternoon nap); a minimum of stress, physical

*Here may be a suggestion for experiments by those who are using pyretotherapy.—Ed.

and mental: a diet carefully regulated as to quantity, quality and components: active elimination.

An outdoor, carefree life is ideal. Excitement, especially sex, cards, "social whirl," movies, overwork, tension and worry, often precipitates attacks.

The diet should contain not more than 2,000 calories a day. Animal proteins and fats should be used sparingly; tea, coffee, chocolate, alcohol, legumes, cabbage and other "gassy" foods, spices and foods containing chemical preservatives, flavors or coloring matter, not at all. At least two quarts of liquids should be taken every day, ending at 4:00 P.M., so that sleep may not be disturbed by a full bladder.

The sheet-anchors in medication are cannabis indica and calomel. The former should be taken in doses of 1/12 grain (6 mgm.) three times a day, up to 1/4 grain (16 mgm.) every four hours while awake, as required for relief.

At the first prodromal symptoms, 1½ grains (0.1 Gm.) of calomel should be taken at one dose, and repeated if relief does not come after 12 hours. If the pain persists for another twelve hours, the patient should take the full maximum dose which he has found necessary — up to 6 grains (0.4 Gm.). For patients who cannot tolerate calomel, ¼ to ½ grain (16 to 32 mgm.) doses of podophyllin, with plenty of water, will act as a rather poor substitute.

Immunization Against Measles

In *Practitioner*, Jan., 1932, Dr. W. Gunn, of London, states that after the age of five years, a child who has escaped an attack of measles should be exposed deliberately to infection, and attenuation secured by the use of serum. In this way the whole population could be rendered immune by the time children enter school and the loss of time and cost of epidemics avoided.

The method necessitates the availability of public supplies of approved serum collected from measles convalescents. The blood is withdrawn 10 to 14 days after defervescence and amounts from 20 cc. up to 100 cc. taken, according as the donor is a child of 5 years or an adult. The samples, following testing for syphilis and sterility, are sealed in ampoules. The immunizing dose of serum for a child is 5 cc., injected intramuscularly in the first 5 days following exposure to infection.

Treatment of Amebiasis with Carbarsone

Amebiasis is widely distributed over the United States and none of the usual treatments is quite satisfactory. Emetine, the most commonly used drug, is only partially effective in doses which too often are dangerous, especially to the heart.

In J.A.M.A., Jan. 16, 1932, Dr. A. C. Reed and associates, of San Francisco, draw attention to a new drug, Carbarsone (4-carbamino-phenyl arsonic acid), first prepared by Ehrlich, which they state has been found clinically to be a very effective amebacide.

The author treated 40 unselected amebiasis patients with Carbarsone, containing 28.8 per cent of arsenic. The recommended dosage is 75 mgm. per kilogram of weight, in divided amount over at least a 10-day period, since the arsenic in the compound seems rather slowly absorbed and eliminated after oral administration. Practically this dosage amounts, in the average adult, to 0.25 Gm. twice daily for 10 days, given in gelatin capsules by mouth.

Thirty-six (36) of the 40 patients treated were clinically cured, according to the cure criteria laid down by the authors. Some of these patients had previously been treated unsuccessfully with other drugs. The authors consider that Carbarsone meets the requirements of an ideal antiamebic agent more closely than does any other drug now used; it is clinically non-toxic in effective doses; it may conveniently be administered orally without interference with the patient's ordinary routine; it has no untoward side actions and is comparatively cheap. There is, as yet, no evidence that it has prophylactic value.

In the same Journal, C. D. Leake, Ph.D., gives a critical survey of the results obtained with the various chemical drugs used as amebacides. He states that controlled clinical trial of Carbarsone, based on fair preliminary experimental data, indicates its superiority to any amebacide in ordinary use, especially in its marked effectiveness in non-toxic doses. In comparison with other chemical types of amebacides, the organic arsenicals are significant in manifesting a general "tonic" effect, difficult to evaluate experimentally, though clearly evidenced clinically. But they may exhibit toxic effects which makes it expedient to employ them cautiously.

Maggot Treatment of Pyogenic Infections, Including Compound Fractures

In *Surg., Gynec. & Obstet.*, Apr. 1932, Dr. S. K. Livingston, of Hines, Ill., reports upon 5 cases of infected compound fractures, 4 cases of tuberculous osteomyelitis, 90 cases of chronic pyogenic osteomyelitis and 1 case of infected stump following repeated amputations, all of which were subjected to the maggot treatment.

The author is of opinion that there can be no question as to the healing value of the maggot or larvae treatment in all forms of chronic osteomyelitis, infected wounds and complications following fractures.

The interest aroused by the results obtained would naturally lead to an investigation of the reason for the effectiveness of this treatment The author's experiments would seem to show that it is not merely the mechanical action of the maggots: i.e., feeding, rapid movement, et cetera, in the wound, but rather that some additional agent is developed that aids in the healing process. This conclusion seems warranted when we consider that a paste made from the dead bodies of maggots is also effective as a curative agent. That additional agents are probable in effecting the cure, seems to be clearly demonstrated by the use, also, of filtered

extracts from the bodies of the dead larvae. This would seem to point clearly to the presence of some agent which, in itself, is sufficiently powerful to overcome infections and permit the normal hydrogen-ion concentration balance to be established.

The agent believed to effect this result is a bacteriophage. This opinion is warranted from the fact that filtered, uncontaminated products derived from the bodies of larvae in culture were quite as suitable as the living maggot, and from the fact that, when these cultures were brought into contact with pyogenic organisms in petri dishes, cultures were destroyed. It is equally possible that tissue derivatives are also potent agents in the healing process. This phase is being studied and will be reported at an early date.

In the series of 100 cases were 95 percent cures.

Quinidine for Cardiac Irregularity Due to Hyperthyroidism

In *Ann. Intern. Med.*, Jan., 1932, Dr. J. P. Anderson, of Cleveland, reports good results from the postoperative use of quinidine sulphate in the treatment of cardiac irregularities, especially those which are secondary to hyperthyroidism.

The medication is administered to patients in whom auricular fibrillation is still present on the third postoperative day. Following a test for idiosyncrasy, 5 grains (0.32 Gm.) of quinidine are given every 4 hours day and night for 24 hours. If no improvement is noted after 24 hours, 5 grains are given every 3 hours for 24 hours and then every 2 hours for 24 hours more, or even 48 hours. In the majority of cases (about 96 percent) normal rhythm will be restored after a few doses, but occasionally two or three days treatment will be required.

The author's experience is that better results are obtained in hyperthyroid cases with auricular fibrillation when quinidine is given during the period of the postoperative reaction than later.

Fractures of Upper End of Humerus

In *J.A.M.A.*, Jan. 30, 1932, Dr. S. M. Roberts, of Boston, analyzes 96 cases of injuries to the upper end of the humerus, treated at the Massachusetts General Hospital, to show especially the advantage, in certain cases, of a simple form of fixation and the importance of early active motion. These cases include only fractures and fracture-dislocations at or above the level of the surgical neck of the humerus. Of the 96 cases, 76 were classified as either surgical or anatomic neck injuries.

For fracture of the greater tuberosity, fixation in abduction is usually sufficient treatment.

In fracture dislocations, the most common fracture is that of the greater tuberosity. It is seldom necessary to treat the fracture; when the dislocation is reduced the fractured fragment returns to position.

Dislocations with separation of the head are difficult problems. They must be considered individually and require guarded prognosis. Removal of the head should be avoided if possible.

In epiphyseal separation, exact reposition is necessary. Open operation is therefore often indicated. Once replaced, the reposition is stable.

Transverse fractures of the surgical neck occur in young people and are prone to displacement. Good reposition is necessary, often requiring open operation, as manipulative correction is often difficult.

Comminuted fractures occur in elderly people and displacement is not a feature. Simple fixation suffices and early motion is desirable.

Of 26 cases of transverse surgical neck fractures, 18 gave a perfect anatomic, 20 a perfect economic and 19 a perfect functional result.

Of 50 comminuted fractures, 41 gave a perfect anatomic, 43 a perfect economic and 39 a perfect functional result.

Compared with ten years ago, there has been a marked trend away from prolonged fixation and the position of abduction toward simple fixation and early active motion. The end-results of such treatment are good.

Toxoid as an Immunizing Agent Against Diphtheria

In *J. Michigan St. M.S.*, Dec., 1931, Dr. D. J. Barnes, of Detroit, reports the following results with toxoid in immunization against diphtheria:

1.—433 children were given the Schick test and reaction test. Of these, 24, or 5.5 percent, showed a positive reaction test.

2.—202 Schick-positive patients between the ages of six months and six years, receiving two doses, 1 cc. each, of toxoid, given at three-week intervals, were Schick tested monthly until negative or until six tests had been done.

3.—At the end of one month, 77.7 percent had become Schick-negative and at the end of six months 98.5 percent of the total had become negative.

4.—No severe reactions were noted—the few occurring being mild and not differing materially from those experienced when toxin-antitoxin was used.

5.—A preparation free from horse serum was used, thus producing no sensitization in the patient against horse serum. A much higher percent of children have been rendered immune with the treatment, thus making further treatment unnecessary in all but 1.5 percent of the cases. The adoption of toxoid would result in a greater percent of children being immunized by a single series of treatments, and would have a beneficial psychologic effect, since there would be fewer "treated" children developing diphtheria and fewer cases needing the series repeated.

Ringworm or Fungus Infection of the Skin

In *Southern Med. & Surg.*, Dec., 1931, Dr. W. L. Kirby, of Winston-Salem, N. C., states that, in cases of superficial vesicular type of fungus infection, he has found local treatment with wet dressings, salves, and fractional dosage of x-rays to be most dependable, if proper precautions, including sterilization of shoes, socks, etc., are used to avoid reinfection.

In the acute cases without secondary pyogenic infection, fractional doses of x-rays every three or four days, opening of the larger vesicles, and continuous wet dressings of ½ to 1 percent, freshly-prepared aluminum acetate solution, are very effective in drying up the eruption and relieving the discomfort. This requires a week to ten days, after which he uses the exfoliating paste of salicylic acid, 6 to 20 percent, depending on the thickness of the skin to be exfoliated. This peels off the fungus-laden epidermis and the peeling process should be continued a week or ten days after all evidence of the infection has disappeared. If the patient is ambulatory, it is best to use the paste only at night and an antiseptic paint during the day. He uses the carbol fuchsin paint according to Castellani's formula.

℞

Sat. Sol. Basicfuchsin	10%	10 cc.
Liquified Phenol	4%	100 cc. of 5% sol.
B. A. Powder	1%	1 gm.
Acetone	5%	5 gm.
Resorcin	10%	10 gm.

After all lesions are gone, the patient is instructed to use an antiseptic dusting powder daily, composed of salicylic acid ½ dram (2 Gm.), boric acid 1 dram (4 Gm.), starch and talc of each q.s ad 1 ounce, for several days.

Diphtheria Immunization in Detroit

Referring to diphtheria immunization work, in *Ohio St. M. J.*, Feb., 1932, Dr. V. C. Rowland, of Cleveland, states that in Detroit the Commissioner of Health made a three-year agreement with the Medical Society that all treatment was to be given by private practitioners; none in public clinics. The first work of the Commissioner of Health was the popularization of diphtheria immunization.

After a campaign of publicity in the newspapers, by posters, and personal interviews by the public health nurses, who made 250,000 visits in four months, it was announced that, for people who could not go regularly to their private physicians, special hours would be set aside by the same physicians during which toxin-antitoxin injections would be given for a nominal sum or free if necessary. If nothing was paid by the patient, the Health Department paid the private doctor a nominal fee for the service.

The result was that all parties concerned were pleased. About 80 percent of the school and 70 percent of the pre-school children of Detroit were immunized. Private practitioners received $120,000 ($145 per cooperating physician) from the Health Department, in addition to $100,000 in private fees for work that never would have been done if the campaign had not been launched. The children were protected and the Health Department credited with one of the most outstanding and progressive pieces of constructive work in the United States. At the same time, money was actually saved for the city, as calculated on the cost of the care of diphtheria cases and antitoxin for the previous year.

Control of Epidemic Poliomyelitis (Infantile Paralysis)

In *Med. Times and Long Island M. J.*, Feb., 1932, Dr. Josephine B. Neal, of the New York City Dept. of Health, remarks that there is no disease which strikes terror to the heart of most parents as does poliomyelitis, and there are certain points they should know. One is that a very large percentage of children are immune to the disease. Second, we are perfectly sure that, in a large number of cases, the disease does assume a benign form without resulting paralysis. Third, of the cases with paralysis, a very good restoration to function may be obtained, in a large percentage of cases, if proper orthopedic care is given early.

The presence of a non-paralytic form of the disease is fully recognized; it has the same clinical picture and the same changes in the spinal fluid that most paralytic forms have, but it does not go on to paralysis.

The percentage of cases in which no paralysis develops varies greatly in different epidemics. Many of these escape diagnosis.

Of the aids to diagnosis, the most important is the examination of the spinal fluid. In poliomyelitis the spinal fluid is usually increased in amount and there is usually an increase in the cells. These cells are, in the majority of cases (80 percent or more), mononuclears, but we see a certain percentage of cases in which the predominating cells are polynuclears.

Treatment with the serum of convalescent patients or the serum from immunized horses seems, at present, to be the most practical and effective.

Pituitary Cachexia (Simmonds' Disease) Treated with Anterior Pituitary Extract

A Negro farmer, aged 19, whose past health had been good and who had not been exposed to tuberculosis, had begun to suffer, five months before admission, from weakness, anorexia, nausea, gaseous eructations, constipation, loss of weight, loss of normal texture of the skin, falling of axillary and pubic hair and decrease in libido and sexual power. Physical observations confirmed the history of loss of weight and changes in the skin and revealed weakness, apathy, subnormal temperature and low blood pressure. The sugar-tolerance curve was of a mild diabetic type; the tuberculin test was positive; and the basal metabolic rate was low.

The patient was treated with a commercial acid extract of the anterior lobe of the hypophysis (daily subcutaneous injections of 1 cc.). Under this treatment his health was apparently completely restored. The blood pressure and metabolic rate returned to normal, and he gained 16 Kg. (35 pounds) in weight.

Simmonds originally described this disease syndrome, and the experimental counterpart of the condition was produced in animals by P. E. Smith. — Dr. R. M. Calder, in *J.A.M.A.*, Jan. 23, 1932.

NEW · BOOKS

To practice medicine without books is to sail an uncharted sea; while to read books without practice is never to go to sea at all.—SIR WILLIAM OSLER

Sutton & Sutton: Introduction to Dermatology

AN INTRODUCTION TO DERMATOLOGY. By *Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.), Professor of Diseases of the Skin, University of Kansas School of Medicine; and Richard L. Sutton, Jr., A.M., M.D., Visiting Dermatologist to the Kansas City General Hospital.* With 183 Illustrations. St. Louis: The C. V. Mosby Company. 1932. Price $5.00.

This introduction to dermatology is intended primarily for students in order to furnish the fundamentals of the subject, which are often difficult to obtain from the more comprehensive textbooks. It has the advantage of the senior author's long experience for the selection of what are considered the essentials on which a sound knowledge of dermatology can be built up and is based on his larger textbook of "Diseases of the Skin."

There are 18 chapters; the first six deal with generalities, the others deal with accepted classes of skin diseases. Particular clinical entities in each class are described in the same formal manner under general captions.

The authors, while adhering to accepted nomenclature, keep in mind the newer dermatology which recognizes not only true diseases of the skin proper and its appendages but those skin manifestations which are only symptoms of systemic derangements or specific diseases which involve the skin and other organs.

The book should fulfil the purposes of the authors; it is copiously illustrated and well printed.

Jacobson: Fungous Diseases

FUNGOUS DISEASES. A Clinico-Mycological Text. By *Harry P. Jacobson, M.D.: Attending Dermatologist and Member of the Malignancy Board, Los Angeles County General Hospital.* With *Introductions by Jay Frank Schamberg, M.D., Professor of Dermatology and Syphilology, Graduate School of Medicine, University of Pennsylvania; and Howard Morrow, M.D., Clinical Professor of Dermatology, University of California Medical School.* Springfield, Ill., and Baltimore, Md.: *Charles C. Thomas.* 1932. *Price* $5.50

Saprophytic and parasitic dermatomycoses are sufficiently common in the United States that any practitioner may any day expect to meet cases and have to treat them. Favus, ringworm, blastomycosis and actinomycosis are frequently met entities, and the two last conditions are not confined to the skin.

Dr. Jacobson's monograph on clinical mycology is, therefore, timely, as it offers a comprehensive, concise and readable discussion of the subject, bringing together many facts and observations scattered throughout the literature, arranged and criticized by one thoroughly familiar with this special field.

The cultural and microscopic appearance of the various pathogenic fungi are described with considerable detail and the clinical aspects made so plain that it should offer little difficulty to any practitioner to recognize types and even particular mycoses. The author makes it a special point to dwell on diagnostic aspects and to make his book practical in this respect. Naturally many conditions described are rare, or at least uncommon, but they must be included in any work which purports to be comprehensive. Such is the coccidioidal granuloma which, at least at present, is circumscribed to the California region and on which the author is an authority.

One of the great values of this book is that it removes the therapeutics of mycoses from the empiric to the scientific. While in many respects medical science at the present time is not able to deal adequately with the ravages of certain fungi, at least it knows the etiology and time will develop satisfactory measures for dealing with the invaders.

The volume is one that should be welcomed by dermatologists, by internists, surgeons, pathologists and indeed by all practitioners of medicine, as it throws much light on the etiology, diagnosis and treatment of a widespread class of diseases. The printing and general make-up leaves little to be desired. The index is ample but could be improved by editing.

System of Bacteriology

A SYSTEM OF BACTERIOLOGY IN RELATION TO MEDICINE. Privy Council. Medical Research Council. *Volume VI and Volume IX. London: His Majesty's Stationery Office. Obtainable in the United States through the British Library of Information, 270 Madison Ave., New York City.* 1931. *Price* $5.00 (less 10% temporary exchange discount).

This *System of Bacteriology in Relation to Medicine*, in nine volumes (of which we have received Volumes 6 and 9), has been prepared under the direction of the British Government Medical Research Council.

Volume 6 is devoted to immunity and includes the contributions of 12 bacteriologic experts on the various subjects discussed. The 17 chapters making up the book include a comprehensive review and critical survey of the literature and present aspect of natural immunity, active immunization with toxin, antigens, antibodies, opsonins, agglutination, the modes of action of bacteria and their products and all other important matters allied to the main theme. In this way the reader is presented with a continuous, connected and annotated panorama of the development of immunity and its phenomena, which combines the theoretic and practical aspects and enables one to get a firm grip on this rather complicated branch of bacteriologic science.

Volume 9 deals with technic. Owing to the vast numbers of technical processes developed by different investigators the editors have, of necessity, been obliged to confine themselves to selected methods. The various chapters supply the technical details necessary for carrying out a bacteriologic process, according to the method adopted by the author of the article, and without any discussion of principles or consideration of methods adopted by others. The 22 chapters comprising the book include all the important procedures in practical bacteriology.

In each volume there are extensive bibliographies at the ends of the important chapters.

The work is thorough. Coming from the hands of serious investigators and experts, it may be accepted as reliable and, if the other volumes of the series are as comprehensive as those before us, as complete as a compendium of this kind can reasonably be expected to be.

The series is one that should be very acceptable in all working libraries of bacteriologists or general medical reference libraries. In the United States, the volumes may be obtained at a discount of 10 percent on the published price per volume from the British Library of Information, 270 Madison Ave., New York, New York.

Lattes: Individuality of the Blood

INDIVIDUALITY OF THE BLOOD IN BIOLOGY AND IN CLINICAL FORENSIC MEDICINE *By Professor Leon E. Lattes, Director of the Institute of Forensic Medicine in the University of Modena. Translated by L. W. Howard Bertie, M.A., B.M., B. Ch. (Oxon.), from the French Edition of* 1929, *thoroughly revised and brought up to date by the author. London and New York: Humphrey Milford, Oxford University Press,* 1932. *Price* $7.50.

This is an interesting book, which, although published first in 1923, has run into several foreign editions but has only just been translated into English.

The fact that human bloods could be divided into well defined groups has been known for a long time, especially since the publication of the studies of Donath and Landsteiner. The notion of the "individuality" of a blood, however, is a newer conception. The work of many investigators, which includes the author's own contributions, has advanced the main question from the simple notion of human groups to the conception of a genuine individuality. This is of the utmost importance not only for pure biology but also for clinical medicine and criminology; above all for the practical application in affiliation cases of the views on the hereditability of the individual properties of the blood.

The main sections of the book deal with individual reactions of normal blood; with the hereditability of the individuality of the blood; with individuality of the blood as an ethno-anthropologic fact; with the individuality of the blood in its clinical and forensic application. The final chapter deals with technic of individual blood reactions. There is an extensive and apparently complete bibliography of references.

The work shows a very profound study of the literature as well as practical findings. It should be of deep interest to all biologic investigators, to students of legal medicine and in the abstract to all physicians and scientists. It brings together in a concise form much scattered work that is correlated by its nature.

Whitnall: The Human Orbit

THE ANATOMY OF THE HUMAN ORBIT AND ACCESSORY ORGANS OF VISION. *By S. Ernest Whitnall, M.A., M.D., B.Ch. (Oxon.), M.R.C.S., L.R.C.P. (Lond.), Professor of Anatomy, McGill University, Montreal; Late University Demonstrator of Human Anatomy, Oxford. Illustrated largely by Photographs of Actual Dissections. Second Edition. London and New York: Humphrey Milford, Oxford University Press,* 1932. *Price* $6.25.

Dr. Whitnall's book is an expansion of his lecture notes for university students. It gives the detailed macroscopic and microscopic anatomy of the eye and its associated structures, especially the accessory nasal sinuses. There are three parts: Part I, osteology, the bones forming the orbit and accessory air sinuses of the nose; Part II, the eyelids, including the conjunctivae and lacrimal apparatus; Part III, the contents of the orbit. There is an appendix dealing with the nervous connections of the eye, with an extensive bibliography of references. The work is high class and will especially interest the anatomist and ophthalmologist.

Medical Clinics of North America

MEDICAL CLINICS OF NORTH AMERICA. *Philadelphia Number. Volume* 16, *Number* 1. *July,* 1932. *Philadelphia and London: W. B. Saunders Company. Issued serially, one number every other month. Per Clinic year, July,* 1932 *to May,* 1933. *Price, Paper,* $12.00; *Cloth* $16.00.

The July 1932 number of the *Medical Clinics of North America* is a Philadelphia number and contains 26 contributions, the majority being from Pennsylvania Hospital and the hospital of the University of Pennsylvania.

Papers of special interest to the general practitioner are: "Can We Prevent Heart Disease," by Dr. Jas. E. Talley; "Shoulder-Top Pain as a Diagnostic Sign," by Dr. F. J. Kalteyer; "The Healing of Gastric Ulcer," by Dr. T. G. Miller; "Masked Hyperthyroidism," by Dr. M. G. Wohl; "Obstetrical Paralysis," by Dr. J. D.

Leebron; "Eight Cases of Congenital Heart Disease," by Drs. W. T. Read, Jr., and E. B. Krumbhaar; "The Differential Diagnosis of Chronic Pulmonary Disease," by Dr. D. A. Cooper; and "Thyroid Heart Disease" by Dr. L. S. Carey.

This is an exceptionally good number from the purely clinical and practical points of view.

Lake: Hilltops

HILLTOPS. *By George Burt Lake, Highwood, Ill.: Northshore Publishers.* 1932. *Price* $1.00.

Modern verse is varied as the sea and as amenable to changing pattern. If this stream of poetic expression is the barometer of modern thought, it is interesting to note that out of chaos has come experimentation; out of experiment freedom. There is no quibble or cavil when a writer has successfuly attained his end. Readers, as always, quietly select what is vital to them and go their way.

Dr. Lake's little book, "Hilltops," is one of the volumes — thin, dignified and good to the hand — which verse-lovers will take with them. This writer's first book of poems, "An Apostle of Joy," contained much beauty and helpfulness, but in "Hilltops" there has been attained a sureness of touch and significance of utterance far beyond that tentative collection. Not all these verses have poetic value, but all have meaning and purpose, beauty, fine feeling and always a thread of philosophy giving an upward fling of joy to the purpose of living. His strokes are sure and his conclusions satisfy.

"He who can turn his back on woes and sins
And all the senseless things for which men strive
Has reached the place where happiness begins
And, here on earth, has entered Heaven alive."

The initial poem, "Hilltop," should be broadcast wherever depression has flattened the spirits; "Laus Maturitatis" sustains those who have reached the fork in the road called "middle age"; "An Eastern Garden" touches the heart of his message. Its last stanza sets the key for this book:

"Would you come into my garden?
Doubting and fears abandon.
Lay down your toys—your "real" things.
Bliss is the final goal!
Acres and miles lack meaning.
Time is a dream of darkness.
All things that grow in my garden
Root deep in the loam of the soul."

ADA BORDEN STEVENS

Transactions of College of Physicians of Philadelphia

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. *Third Series, Volume the Fifty-Third. Philadelphia: Printed for the College.* 1931.

The fifty-third annual volume of the Transactions of the College of Physicians of Philadelphia contains the papers read before the College during 1931. The general section includes two symposiums — one on the therapeutic use and abuse of fluids, in connection with dehydration and nonspecific protein therapy especially; the other on syphilology during the past five years. The leading Philadelphia syphilologists, such as Kolmer, Schamberg and Stokes, makes special contributions.

Of more than regional value is the fine paper by Dr. C. E. A. Winslow on "The Community Health Program;" and the essay by Dr. F. R. Packard on "How London and Edinburgh Influenced Medicine in Philadelphia in the 18th Century" contains a multitude of interesting historical facts.

Williams: Purchase of Medical Care

THE PURCHASE OF MEDICAL CARE THROUGH FIXED PERIODIC PAYMENT. *By Pierce Williams, of the staff of the National Bureau of Economic Research, Incorporated; assisted by Isabel C. Chamberlain. New York: National Bureau of Economic Research, Inc., 51 Madsion Ave.* 1932. *Price* $3.00.

The methods of providing adequate medical and surgical care, including hospitalization, for the great bulk of the people and the cost of this service, are vital questions which are commanding much attention at the present moment.

The present work on the purchase of such care by fixed periodic payments is the result of investigation by the National Bureau of Economic Research, made at the request of the Committee on the Costs of Medical Care. The inquiry was mainly to find the extent to which the people of the United States make use of the principle of insurance in order to secure medical benefits.

The report tells in detail of the several plans by which individual employees of corporations and other large employers of various kinds throughout the country, in consideration of a fixed amount paid periodically, are assured of medical or hospital care for themselves and dependents from that organization, whether or not disease or injury is covered by the workmen's compensation laws.

The methods vary according to industries and sections of the country, but practically all come under the term "contract practice," by which a deduction is made from the employee's wages and a contribution is made by the employer.

There is a chapter on the history of the American campaign for compulsory sickness insurance.

The information gathered here is first hand. It should be of value to social workers and to all interested in the costs of medical services, including the compensation paid to physicians and surgeons under the methods of contract practice. Generally speaking, the Judicial Committee of the A.M.A. advises against the adoption of "fixed payment" plans by community hospitals on the ground that they are not economically sound and that contracts cannot be adequately fulfilled.

MEDICAL · NEWS

Wellcome Research Institution

This picture shows the new home of the Wellcome Research Institution, recently dedicated in London, Eng. It will house the Wellcome Bureau of Scientific Research, the Research Laboratories for Chemistry and Physiology, the Historical Medical Museum, the Museum of Medical Science and the Entomological Field Laboratory.

A picture of Sir Henry S. Wellcome, the founder of this Institution, appeared in the March issue of CLIN. MED. AND SURG., on page 242.

Clinical Research in Stomatology

Arrangements are being made to carry on rather extensive clinical studies in stomatology, from the medical standpoint. Physicians who would be willing to devote some time to this work are invited to write for further particulars to Dr. James L. Zemsky, Midtown Hospital, 309 East 49th St., New York City.

Air Ambulances in Siam

A novel feature of the health work in Siam is the air-ambulance service. Owing to lack of highways, the usual means of transport is the bullock cart. As this method is too slow for patients requiring urgent medical treatment, the Government has arranged that the regular mail-service airplanes shall also carry sick persons, physicians and medical supplies. Persons unable to pay are carried free of charge; for others there is a fixed mileage rate. Medical supplies for combating epidemics are transported free.

Siam now has nine Red Cross health centers, three of which are in Bankok, where the first center was opened in 1923. This Far-Eastern country, whose progressive absolute ruler recently visited the United States, also has a school, opened in 1925, which offers a 6-month course in public-health nursing and midwifery to graduate nurses. — U. S. CHILDREN'S BUREAU, Washington, D. C.

Congress of Esthetic Surgery

The French Society of Reparative Plastic and Esthetic Surgery will hold its third Congress in Paris, October 7 and 8, 1932, and will be followed shortly (Oct. 10 to 15, inclusive) by demonstration of modern methods of photographic documentation, including cinematography and radiography.

Details of the Congress or the Demonstration may be obtained from Dr. C. Claoué, 1 Rue Singer, Paris 16e, France.

Gorgas Essay Contest

The Gorgas Memorial Essay Contest this year was on the subject of Mosquitoes and their control. The $500 prize, awarded by Henry L. Doherty, and a trip to Washington, D. C., to receive the prize from President Hoover, were won by Miss Harriet Jones, a high school junior in St. Agnes School, Albany, N. Y.

Send · For · This · Literature

To assist doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., will gladly forward requests for such catalogues, booklets, reprints, etc., as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our readers may use these numbers and simply send requests to this magazine. Our aim is to recommend only current literature which meets the standards of this paper as to reliability and adaptability for physician's use.

Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment, or medicinal supplies. Make use of this department.

When requesting literature, please specify whether you are a doctor of medicine, dentistry, medical student, or registered pharmacist, or a nurse.

C- 47 Campho-Phenique in Major and Minor Surgery. Campho-Phenique Company.

C-392 Arthritis. Its Classification and Treatment. Battle & Co.

C-480 The Incidence of Eczema in Skin Diseases in about 20 percent. Bilhuber-Knoll Corp.

C-504 Bedtime Nourishment. Mellin's Food Co.

C-570 Urinary Tests and Color Charts for Practical Use in Office Diagnosis. Od Peacock Sultan Co.

C-571 Detoxification in the Treatment of Intestinal Infections. The Wm. S. Merrell Company.

C-586 HVC (Hayden's Viburnum Compound). New York Pharmaceutical Co.

C-587 Ethical Health Bulletin No. 1. New York Pharmaceutical Co.

C-596 The Pneumonic Lung. Its Physical Signs and Pathology. The Denver Chemical Mfg. Co.

C-610 Bischoff Pharmaceutical Specialties. Ernst Bischoff Co., Inc.

C-611 Vera-Perles of Sandalwood Compound. The Paul Plessner Company.

C-612 Taurocol. The Paul Plessner Co.

C-613 Specific Urethritis — Gonosan "Riedel." Riedel & Co., Inc.

C-617 Vitamin D needed for proper calcification and tooth health—at all ages — recent experiments show. Standard Brands, Incorporated.

C-632 Foxglove Farm. New Thoughts on Digitalis Action and Dosage. Upsher Smith Co.

C-635 Niazo, Schering, a Modern Genito-Urinary Antiseptic for Oral Use. Schering Corporation.

C-636 Science's latest contribution to female sex hormone therapy—Progynon. Schering Corporation.

C-642 Ergoapiol (Smith) and Glykeron. Martin H. Smith Co.

C-647 The Modern Status of Diabetes. Battle & Co. Chemists' Corporation.

C-669 The Illinois Post-Graduate Medical School Bulletin. The Illinois Post-Graduate Medical School, Inc.

C-672 Inflammation and Congestion. Numotizine, Inc.

C-679 The Gastric Temperament — Cal-Bis-Ma. William R. Warner & Co., Inc.

C-695 High Blood Pressure, Its Causes and Symptomatic Treatment. The Drug Products Co., Inc.

C-696 Pit-Ren for Pneumonia, Asthma and Related Allergic Reaction. The Drug Products Co., Inc.

C-699 Rheumatism Down the Ages. Schering & Glatz, Inc.

C-713 From "Poultess" to "Cataplasm—Plus." Numotizine, Inc.

C-714 Summer Acidosis — Alka-Zane. William R. Warner & Co., Inc.

C-718 For more than 25 years the Dental and Medical Profession have recommended Revelation Tooth Powder. August E. Drucker Company.

C-719 Tetanus-Perfringens (Tetanus Gas-Gangrene) Antitoxin. The National Drug Company.

C-720 National Hay Fever Antigens. The National Drug Company.

C-724 An Unusually Palatable Form of Alkaline Medication. The BiSoDol Company.

C-725 The Hormone — September, 1932. The Harrower Laboratory, Inc.

C-726 The Acid-Base Balance of the Body; Its Relation to Health and Disease. The BiSoDol Company.

C-728 Drops That Tell a Story—Agarol. William R. Warner & Company, Inc.

C-729 Endo Products Price List. Intravenous Products Company of America, Inc.

C-730 A new and outstanding treatment for Aerophagia — An Increasingly Common Complaint Among the American People. E. Fougera & Co., Inc.

C-731 A Primer of Practical Dermatology by Dr. Francois Debat. E. Fougera & Co., Inc.

C-732 Endogens — Resistance Stimulating Therapy. Endo Products, Inc.

C-733 "Storm" Binder and Abdominal Supporter. Katherine L. Storm, M.D.

C-734 Endocrine Problems in Pediatric Practice. The Harrower Laboratory, Inc.

C-735 Some Notes on the Four Forms of High Blood Pressure. The Harrower Laboratory, Inc.

C-736 The Male Climacteric and Related Conditions. The Harrower Laboratory, Inc.

C-737 Descriptive Booklet. Od Peacock Sultan Co.